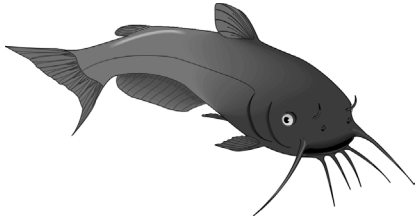
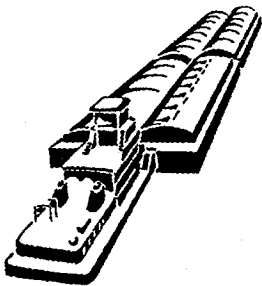


Upper Mississippi River – Illinois Waterway System Navigation Feasibility Study



FINAL REAL ESTATE APPENDIX

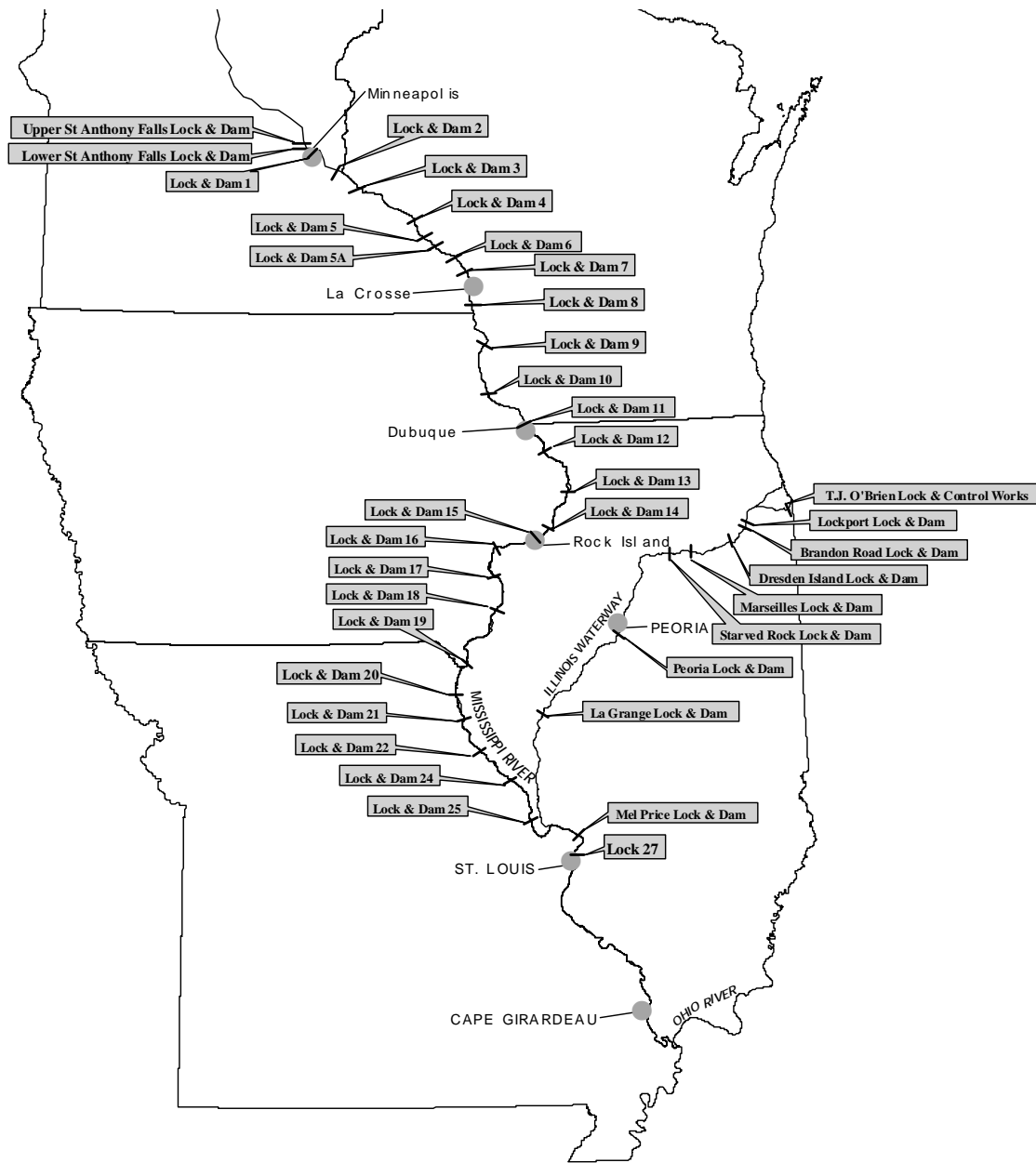


US Army Corps
of Engineers

September 2004

Rock Island District
St. Louis District
St. Paul District

UMR-IWW System Navigation Feasibility Study



REAL ESTATE PLAN

Document RE:
REAL ESTATE PLAN

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I. PURPOSE OF REPORT

This Real Estate Plan is being submitted as a technical appendix for the Upper Mississippi River and Illinois Waterway System (UMR-IWW) Navigation Study. The preparation is in accordance with ER 405-1-12 and follows the general outline for feasibility reports, even though this report is not seeking individual project implementation authority.

This Real Estate Plan is to be considered tentative in nature and for planning purposes only. Several assumptions were made for report purposes in regards to lines on ground and ownership determination. Both property acquisition lines and the estimates of cost are subject to change. Changes will be addressed in site-specific feasibility studies that could result from any authorizations from this study,

Baseline Cost Estimates and Gross Appraisals for Real Estate have been completed for all of the sites. These baseline estimates as well as some site-specific investigations will be used to develop a concept level estimate for all of the proposed sites. Because this report is seeking a programmatic approval of these projects, additional planning reports will be submitted for approval prior to implementation of any specific project. This includes the projects presented in this report.

Government owned or privately owned lands were not mapped out or drawn at any of the project locations. The Appraiser made assumptions on the possible boundaries of these lands. Real Estate Division was asked to provide this information based on latest known communications. It is assumed that future projects that arise due to approval of the report will allow Real Estate to adequately provide detailed and accurate information.

II. DESCRIPTION OF LANDS, EASEMENTS, RELOCATION AND RIGHT OF WAY (LERRD REQUIRED FOR CONSTRUCTION, OPERATION AND MAINTENANCE OF THE PROJECT

1. Project Locations And Description

The project location comprises the upper and middle portions of the Mississippi River and the entire Illinois Waterway. More specifically, it is defined as the segment of the Mississippi River from the confluence with the Ohio River, River Mile 0.0, to Upper St. Anthony Falls Lock in Minneapolis-St. Paul, Minnesota, and River Mile 854.0. The Upper Mississippi River (UMR) has a length of 663 miles, extending from north of Minneapolis, Minnesota to the confluence with the Missouri River north of St. Louis. There are 28 dams with locks on the Upper Mississippi reach. The Middle Mississippi River, approximately 195 miles from the mouth of the Missouri River to the mouth of the Ohio River, is also in the study area, but contains only one lock facility, Locks 27 in the Chain of Rocks Canal near St. Louis. The Illinois Waterway extends from its confluence with the Mississippi River at Grafton, Illinois, River Mile 0.0, to T. J. O'Brien Lock in Chicago, Illinois, River Mile 327.0. There are eight dams with locks on the Illinois Waterway. The project area includes approximately 1,200 miles of navigable waterway in total. The project area lies within portions of Illinois, Iowa, Minnesota, Missouri, and Wisconsin.

The recommend plan for the Navigation portion of Study is assumed to be Alternative 4 combined with Alternative 6 implemented in an adaptive manner. There are two main components of the plan. They are as follows:

1. A navigation efficiency component that is known as Alternative 6. This plan includes small structural measures such as mooring cells, non-structural measures of switch boats, further investigation of other nonstructural measures, mitigation associated with alternative 4, and a combination of lock extensions and new lock construction. Mooring cells would be constructed at Locks, 12, 14, 18, 24, and LaGrange. New locks would be constructed at Lock 20-25, LaGrange, and Peoria; Lock extensions at Locks 14-18; and Switch boats at Locks 11-13. Construction measures include recommending a framework plan providing 1200-foot chambers on 10 sites on the Upper Mississippi River and 2 sites on the Illinois River. The Corps is considering various options for timing of construction of the improvements.
2. An ecosystem restoration component. This component is based on what is identified as Alternative D and would recommend authorization of an initial 7-12 year increment of work as part of a 50-year plan of ecosystem restoration measures. The projects to be included in this first increment would be developed with the stakeholders to address critical ecosystem needs. These early projects

would be chosen to provide insight into the response of the environment to the various project modifications and measures.

The recommendation will include both a programmatic and project specific authority. After the initial 7-12 year period, the Corps would report back to the Congressional committee to provide an assessment of the program and recommend any modifications to the Alternative D framework including potential further authorization. This plan also recommends implementation of measures on project lands or National Wildlife Refuge lands and certain other specific lands at 100-percent federal cost. This cost-share option is a regional recommendation and has not been approved by the administration or the Congress. This plan has been tentatively selected based on the completed technical analysis and comparison thereof, and the plan's potential acceptability in terms of its workability, viability and compatibility with existing laws, and public policies. The initial 7-12 year period lays the groundwork for the 50-year program, while immediately initiating cost-effective management actions designed to regain an increment of lost diversity. Furthermore, implementation, monitoring, and evaluation of new and innovative measures would provide the knowledge necessary to guide future investments. This alternative expands large-scale floodplain restoration to suitable levels; initiates fish passage measures, and brings off-channel habitat restoration to a suitable level.

The UMR ecosystem includes the river reaches described above, as well as the floodplain habitats that are critically important to large river floodplain ecosystems. The total acreage of the river floodplain system exceeds 2.6 million acres of aquatic, wetland, forest, grassland, and agricultural habitats. The Mississippi Flyway is used by more than 40% of the migratory waterfowl traversing the United States. These Trust Species and the threatened and endangered species in the region are the focus of considerable Federal wildlife management activities. In the middle and southern portions of the basin, the habitat provided by the main stem rivers represents the most important and abundant habitat in the region for many species.

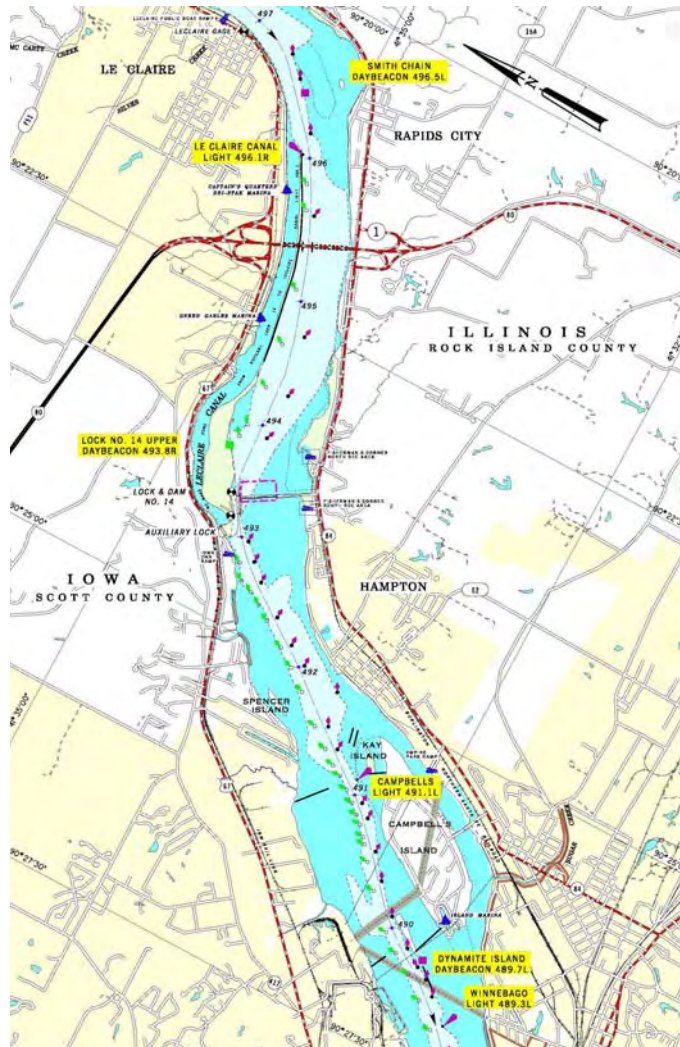
1. Mississippi River – Lock and Dam 14

a. Location

Lock and Dam 14 is located just upstream of Davenport, Iowa and downstream of Le Claire, Iowa at the River Mile 493.3 above the Ohio River. The Lock Master office and operating functions of the lock are situated on the Iowa side (right descending bank) of the Mississippi River.

The lock area is situated in an industrial and residential area, just off of Highway 61. The acquisition area's involved in Lock 14, are situated on the western side of the river, just south of the Interstate 80 overpass. This location is within Scott County, Iowa.

The area appears to be expanding in its industrial uses and residential uses. This expansion is particularly evident along the Mississippi Riverfront.



Lock and Dam 14 Location Map

b. Project Description and Rationale

The real estate acquisition requirements for Lock 14 include the possibility of extending the present locks and required real estate interests. Some of the required lands are already owned by the United States. The federally owned parcels are not included in this cost estimate. Determination of actual boundaries of Federally owned lands and privately owned lands have not been made. All of the following information is based entirely on assumption and is to be utilized for initial planning purposes only. The acreages have been rounded.

The real estate requirements for Lock 14 include the following:

- On-site: No on-site requirements are noted within this plan.
- Off-site: An estimated 30 acres of unidentified staging area. The staging area is required for 6 years, and would most likely be in close proximity, on the Iowa side. As a result, the area selected would most likely be riverfront residential land. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.
- Disposal: 10 acres for a disposal site (for disposal of excavated material) is required for this plan. The site is not identified, but the plan calls for this site to be shared with Lock and Dam 15. Based on available area, the site would most likely be riverfront industrial. These lands would be purchased in Fee.
- Mitigation: A total of 149 acres, including 63 acres of recreational wooded land and 86 acres of wetlands are required for mitigation. The sites have not been identified, however recreational woodland is the most likely type of land sought (Iowa side). These lands would be purchased in Fee
- Owners: 12 owners are estimated to be affected by this plan.

c. Baseline Cost Estimate

The estimated value for LERRD at Lock and Dam No. 14 is as follows:

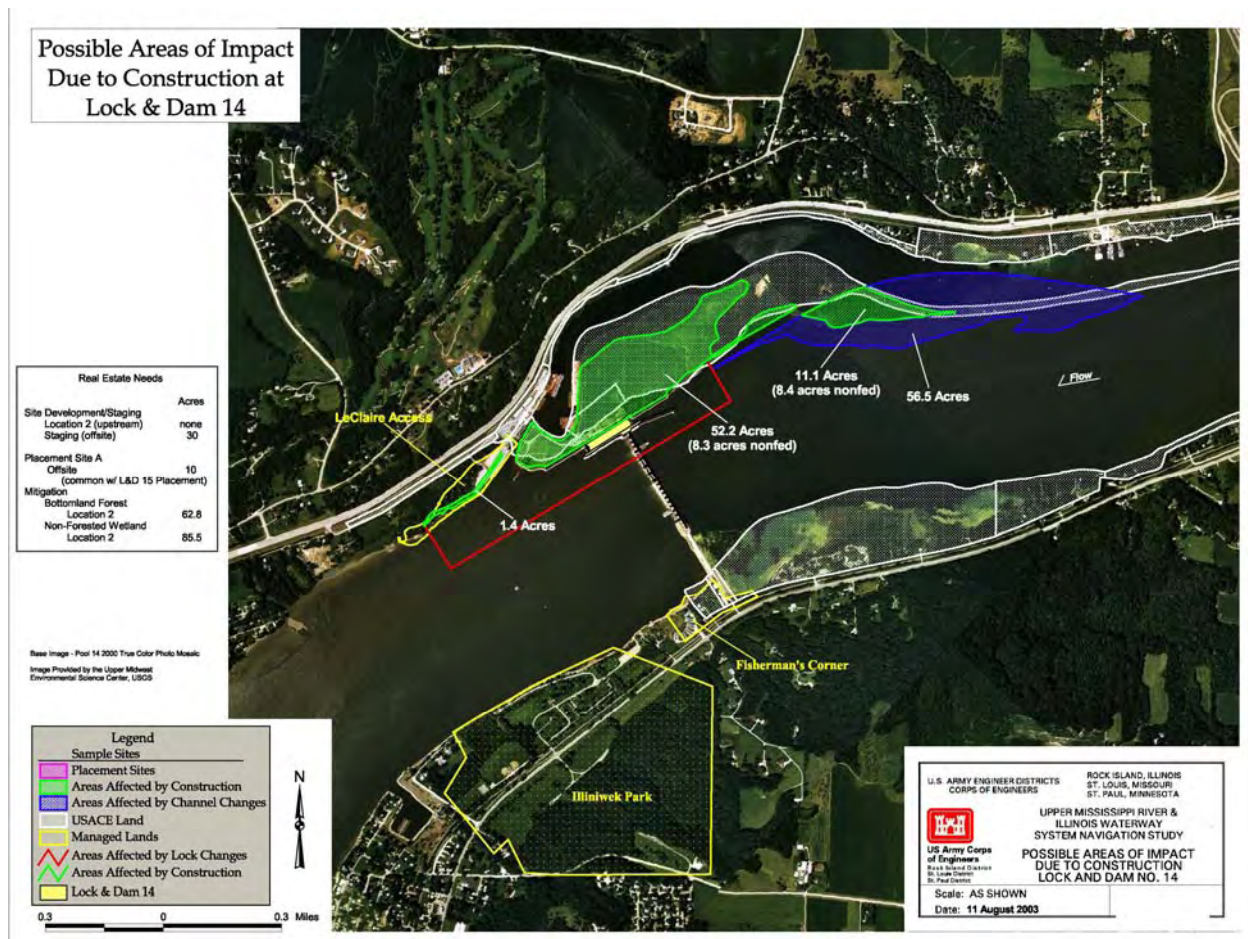
Lands and Damages:	\$ 2,900,000
PL-91 646 Relocation Assistance	\$ 0
Acquisition/Administrative Costs	\$ 240,000
TOTAL	\$ 3,140,000

d. Summary of Estates and Acres Required

LANDOWNERS	ESTATE	ACRES
12	Fee Simple	159
	Temporary Work Area Easement	30
	Totals:	189

e. Map of Possible Areas of Impact Due to Construction

The following map represents the possible areas of impact due to construction. There are currently no references to landowner boundaries. There are no references as to the location of these project areas. Please refer to the location map for comments for State and County determination. Future reports will include the applicable Section, Township, and Range details.



2. Mississippi River – Lock and Dam 15

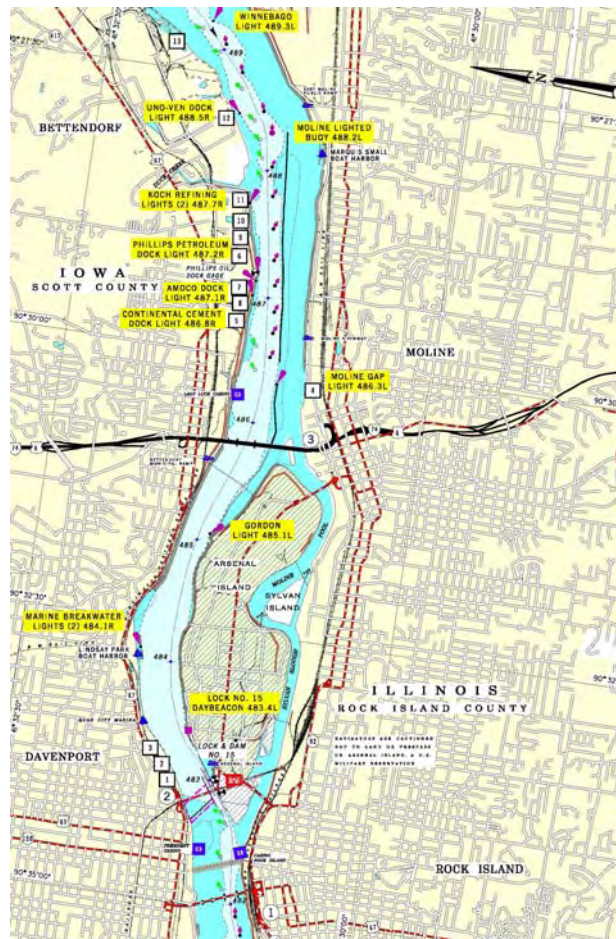
a. Location

Lock and Dam 15 is located near the eastern point of the Rock Island Arsenal, in Rock Island, Illinois, at the River Mile 482.9 above the Ohio River. The Lock Master office and operating functions of the lock are situated on the Arsenal Island (left descending bank), which is a part of Rock Island County, Illinois.

The lock area is situated in a heavy industrial area, opposite of the Davenport, Iowa industrial area. The acquisition area's involved in Lock 15, are situated on the southern side of the Arsenal, within Rock Island County. The river actually flows from east to west at this part of the river

Rock Island, County itself contains the cities of Rock Island, Moline, East Moline and Silvis. Rock Island is the County Seat of Rock Island County.

The area appears to be expanding in its industrial uses and residential uses. This expansion is particularly evident along the Mississippi Riverfront.



Lock and Dam 15 Location Map

b. Project Description and Rationale

The real estate acquisition requirements for Lock 15 include the possibility of lock extensions and required real estate interests. Much of the required lands are already owned by the United States. The federally owned parcels are not included in the cost estimate. Determination of actual boundaries of Federally owned lands and privately owned lands have not been made. All of the following information is based entirely on assumption and is to be utilized for initial planning purposes only. The acreages have been rounded.

The real estate requirements for Lock 15 include the following:

- On-site: No on-site requirements are noted within this plan.
- Off-site: 30 acres of unidentified staging area. The staging area is required for 6 years, and would most likely be in close proximity, on the Illinois side. As a result, the area selected would most likely be riverfront residential land. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.
- Disposal: 10 acres for a disposal site (for disposal of excavated material) is required for this plan. The site is not identified, but the plan calls for this site to be shared with Lock and Dam 14. Based on available area, the site would most likely be riverfront industrial. These lands would be purchased in Fee.
- Mitigation: 60 acres of mitigation area is required for this plan. The site has not been identified, however recreational woodland is the most likely type of land sought (Illinois side). These lands would be purchased in Fee.
- Owners: 10 owners are estimated to be affected by this plan.

c. Baseline Cost Estimate

The estimated value for LERRD at Lock and Dam No. 15 is as follows:

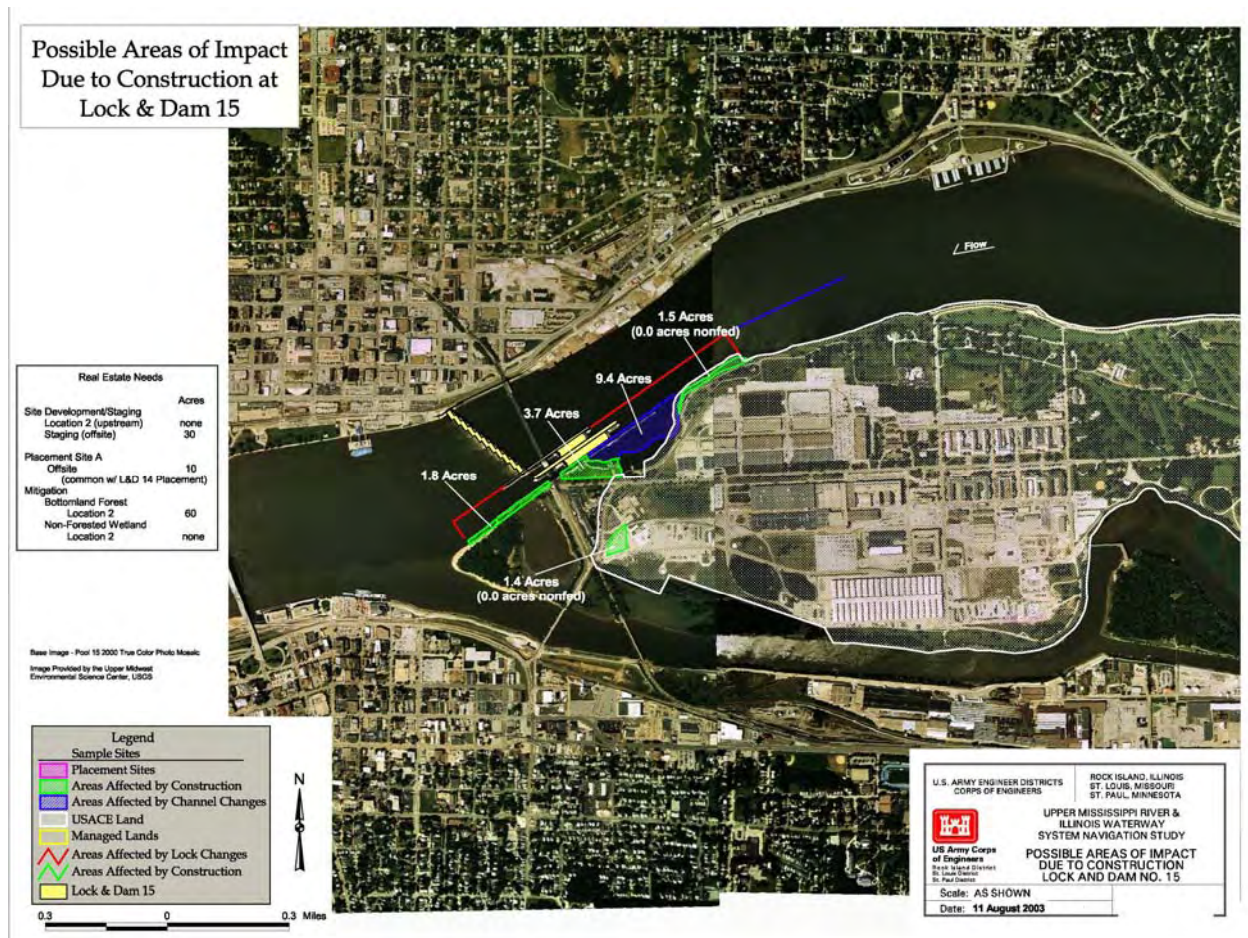
Lands and Damages	\$ 2,500,000
PL 91-646 (Relocation Assistance)	\$ 0
Acquisition/Administrative Costs	<u>\$ 200,000</u>
TOTAL	\$ 2,700,000

d. Summary of Estates and Acres Required

LANDOWNERS	ESTATE	ACRES
10	Fee Simple	70
	Temporary Work Area Easement	30
	Totals:	100

e. Map of Possible Areas of Impact Due to Construction

The following map represents the possible areas of impact due to construction. There are currently no references to landowner boundaries. There is also no reference as to the location of these project areas. Please refer to the location map for comments for State and County determination. Future reports will include the applicable Section, Township, and Range details.



3. Mississippi River – Lock and Dam 16

a. Location

Lock and Dam 16 is located northwest of Illinois City, Illinois, at the River Mile 457.2, above the Ohio River. The Lock Master office and operating functions of the lock are situated on the Illinois side (left descending bank) of the Mississippi River, in Rock Island County, Illinois. The lock area is situated in a remote area. The acquisition areas involved in Lock 16 are situated on the eastern side (left descending bank) of the river, within Rock Island County.

Rock Island County is primarily rural, having primary land uses of agricultural crop production. Muscatine, Iowa is situated in close proximity, and can be easily accessed via Highway 92.

The area adjacent to the lock and dam is comprised of agricultural and forested recreational land.



Lock and Dam 16 Location Map

b. Project Description and Rationale

The real estate acquisition requirements for Lock 16 include the extension of current locks and required real estate interests. Much of the required lands are already owned by the United States. The federally owned parcels are not included in this cost estimate. Determination of actual boundaries of Federally owned lands and privately owned lands have not been made. All of the following information is based entirely on assumption and is to be utilized for initial planning purposes only. The acreages have been rounded.

The real estate requirements for Lock 16 include the following:

- On-site: 8 acres of riverfront that is comprised of recreational woods. These lands would be purchased in Fee.
- Off-site: 30 acres of unidentified staging area. The staging area is required for 6 years, and would most likely be in close proximity, on the Illinois side. As a result, the area selected would most likely be agricultural in nature. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.
- Disposal: 5 acres for a disposal site (for disposal of excavated material) is required for this plan. This site is an agricultural tract that is situated on the opposite side of the levee. These lands would be purchased in Fee.
- Mitigation: 60 acres of mitigation area is required for this plan. The site has not been identified, however recreational woodland is the most likely type of land sought (Illinois side). These lands would be purchased in Fee.
- Owners: 5 owners are estimated to be affected by this plan.

c. Baseline Cost Estimate

The estimated value for LERRD at Lock and Dam No. 16 is as follows:

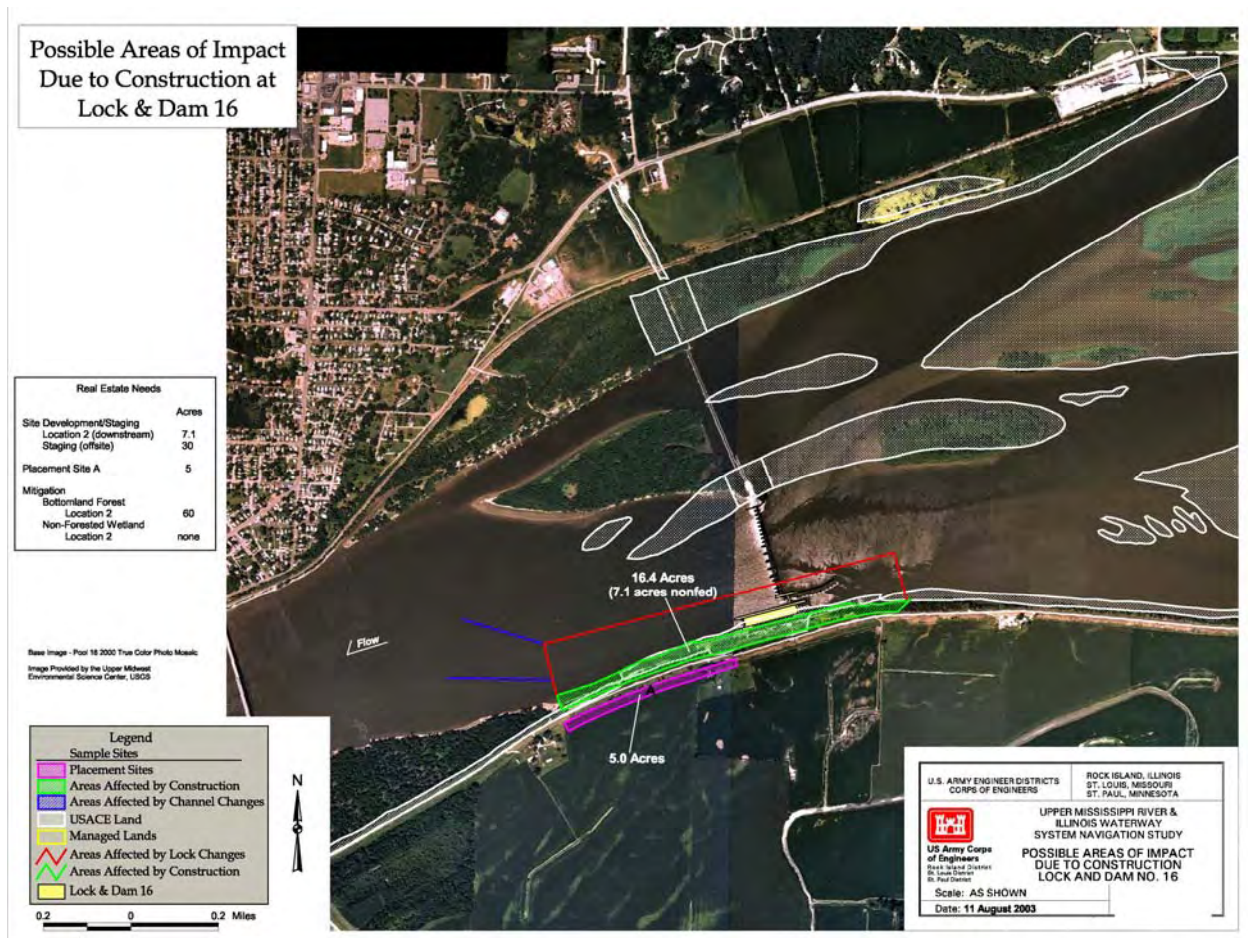
Lands and Damages:	\$ 250,000
PL 91-646 (Relocation Assistance)	\$ 25,000
Acquisition/Administrative Costs	<u>\$ 100,000</u>
TOTAL	\$ 375,000

d. Summary of Estates and Acres Required

TRACTS	ESTATE	ACRES
5	Fee Simple	73
	Temporary Work Area Easement	30
	Totals:	103

e. Possible Areas of Impact Due to Construction

The following map represents the possible areas of impact due to construction. There are currently no references to landowner boundaries. There is also no reference as to the location of these project areas. Please refer to the location map for comments for State and County determination. Future reports will include the applicable Section, Township, and Range details.



b. Project Description and Rationale

The real estate acquisition requirements for Lock 17 include the extensions of the current locks and required real estate interests. Much of the required lands are already owned by the United States. The federally owned parcels are not included in this cost estimate. Determination of actual boundaries of Federally owned lands and privately owned lands have not been made. All of the following information is based entirely on assumption and is to be utilized for initial planning purposes only. The acreages have been rounded.

The real estate requirements for Lock 17 include the following:

- On-site: 38 acres of riverfront that is comprised of woods and open crop production land. Included within this area is a levee, which will require relocation. An Attorney's Opinion has not been received for this. These lands would be purchased in Fee.
- Off-site: 30 acres of unidentified staging area. The staging area is required for 6 years, and would most likely be in close proximity, on the Illinois side. As a result, the area selected would most likely be agricultural in nature. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.
- Disposal: 34 acres for a disposal site (for disposal of excavated material) is required for this plan. This site is an agricultural tract that is situated on the opposite side of the levee. These lands would be purchased in Fee.
- Mitigation: 65 acres of mitigation area is required for this plan. The site has not been identified, however recreational woodland is the most likely type of land sought (Illinois side). These lands would be purchased in Fee.
- Owners: 6 owners are estimated to be affected by this plan.

c. Baseline Cost Estimate

The estimated value for LERRD at Lock and Dam No. 14 is as follows:

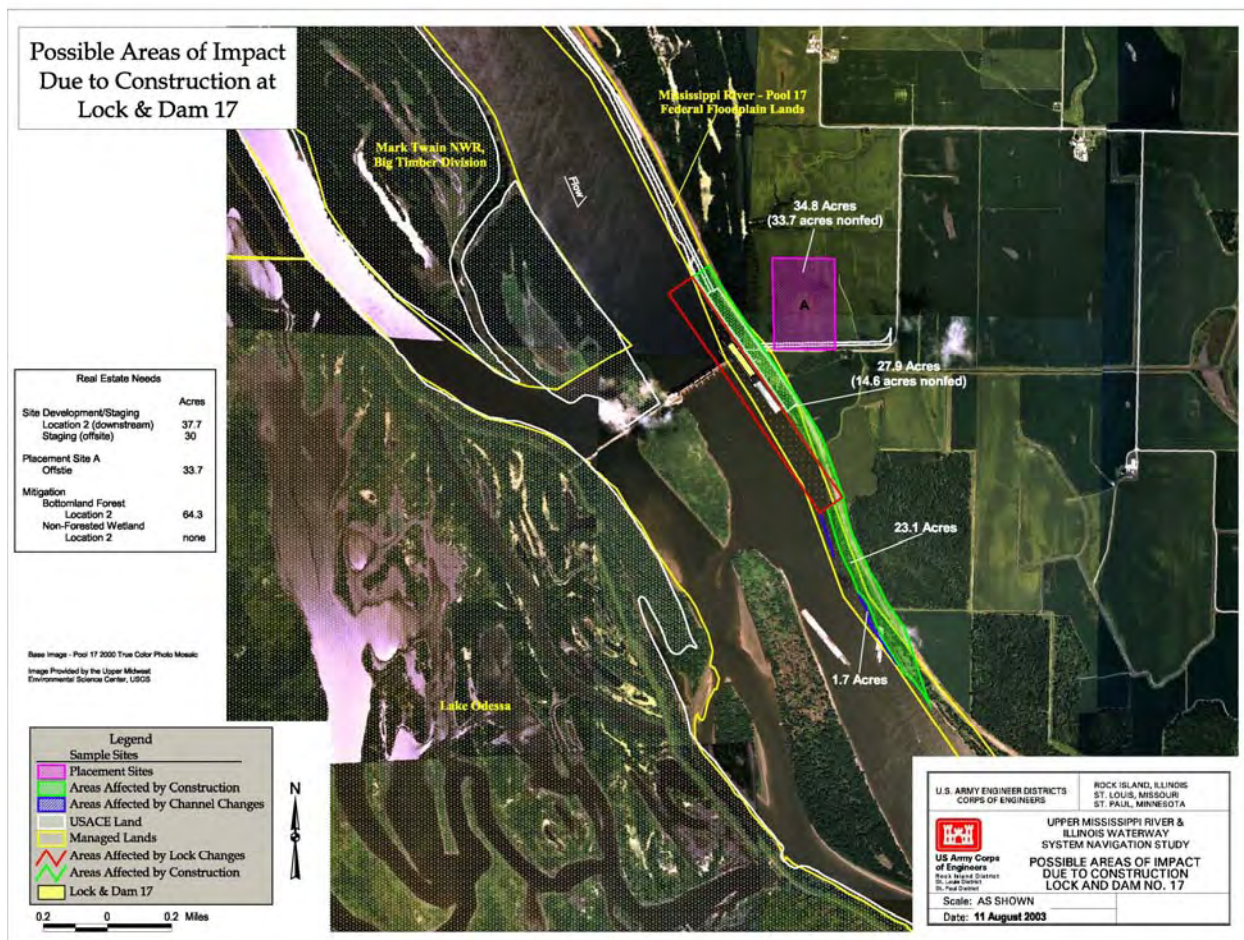
Lands and Damages	\$ 408,000
PL 91-646 (Relocation Assistance)	\$ 0
Acquisition/Administrative Costs	<u>\$ 120,000</u>
TOTAL	\$ 528,000

d. Summary of Estates and Acres Required

TRACTS	ESTATE	ACRES
6	Fee Simple	137
	Temporary Work Area Easement	30
	Totals:	167

e. Map of Possible Areas of Impact Due to Construction

The following map represents the possible areas of impact due to construction. There are currently no references to landowner boundaries. There is also no reference as to the location of these project areas. Please refer to the location map for comments for State and County determination. Future reports will include the applicable Section, Township, and Range details.



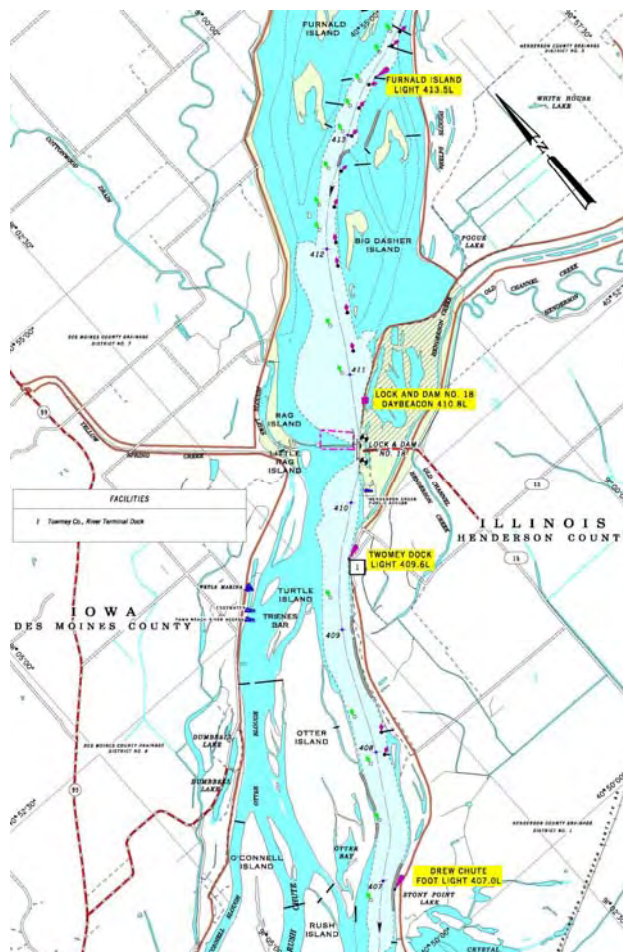
5. Mississippi River – Lock and Dam 18

Location

Lock and Dam 18 is located west of Gladstone, Illinois and slightly upstream of Burlington, Iowa, at the River Mile 410.5, above the Ohio River. The Lock Master office and operating functions of the lock are situated on the Illinois side (left descending bank) of the Mississippi River, in Henderson County, Illinois. The Oquawka State Refuse and picnic area surrounds the lock area. The acquisition area's involved in Lock 18, are situated on the eastern side (left descending bank) of the river, within Henderson County.

Henderson County is primarily rural, having primary land uses of agricultural crop production. The City of Burlington, Iowa however, is a larger modern city of approximately 27,000 populations. Burlington is within easy access from Henderson County.

The area adjacent to the lock and dam is comprised of recreational, minor industrial and agricultural.



Lock and Dam 18 Location Map

Project Description and Rationale

The real estate acquisition requirements for Lock 18 include extensions of the current locks and additional real estate interests. Much of the required lands are already owned by the United States. The federally owned parcels are not included in this cost estimate. Determination of actual boundaries of Federally owned lands and privately owned lands have not been made. All of the following information is based entirely on assumption and is to be utilized for initial planning purposes only. The acreages have been rounded.

The real estate requirements for Lock 18 include the following:

- On-site: 3 acres of riverfront that is comprised of a wooded area and a portion of the picnic area. The area required includes a boat launch that would require buyout. These lands would be purchased in Fee.
- Off-site: 30 acres of unidentified staging area. The staging area is required for 6 years, and would most likely be in close proximity, on the Illinois side. As a result, the area selected would most likely be agricultural in nature. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.
- Disposal: 5 acres of for disposal site (for disposal of excavated material) is required for this plan (Site A). This site is an agricultural tract that is situated near a grain loading facility. These lands would be purchased in Fee.
- Mitigation: 78 acres of mitigation area is required for this plan. The site has not been identified, however recreational woodland is the most likely type of land sought (Illinois side). These lands would be purchased in Fee.
- Owners: 8 owners are estimated to be affected by this plan.

c. Baseline Cost Estimate

The estimated value for LERRD at Lock and Dam No. 18 is as follows:

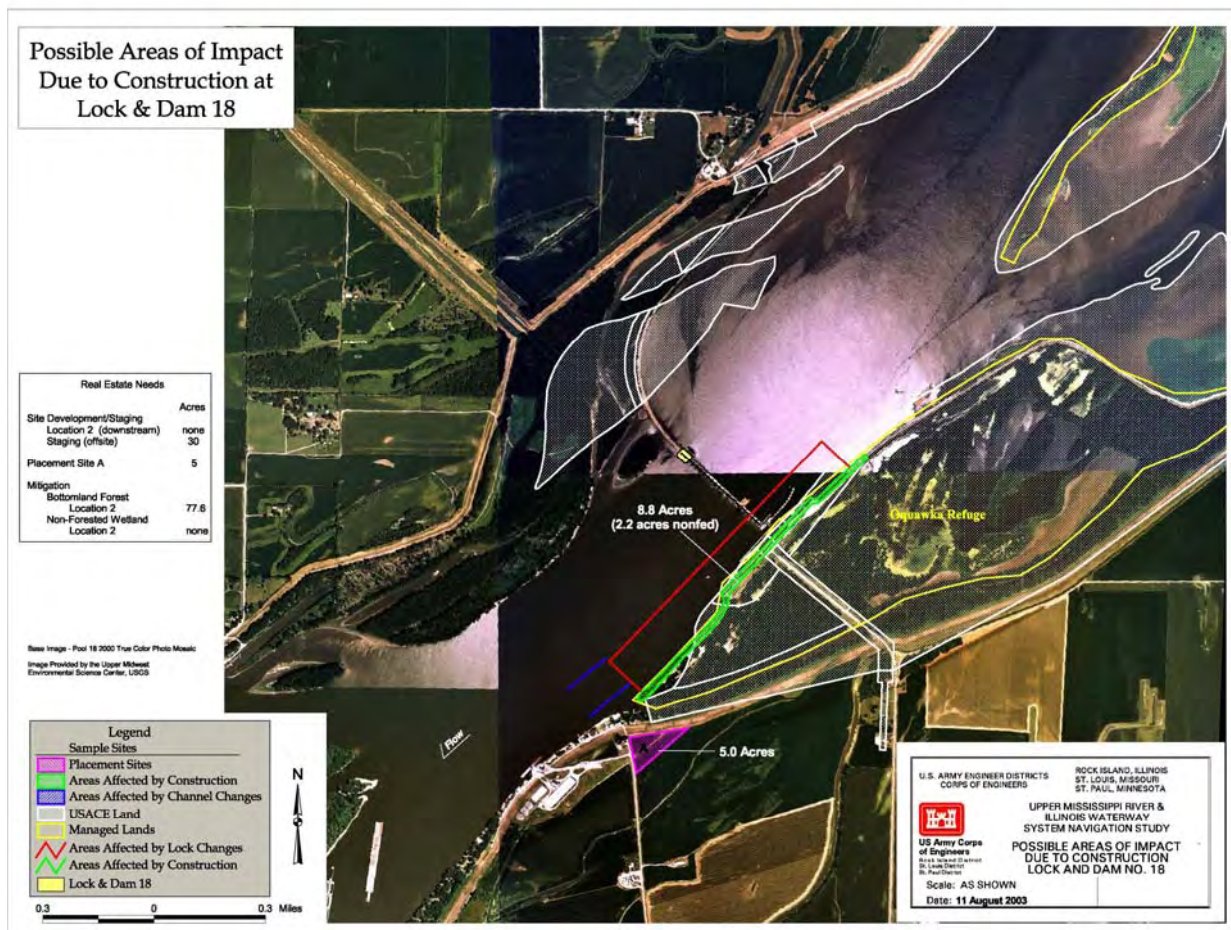
Lands and Damages	\$ 210,000
PL 91-646 (Relocation Assistance)	\$ 0
Acquisition/Administrative Costs	<u>\$ 160,000</u>
TOTAL	\$ 370,000

d. Summary of Estates and Acres Required

TRACTS	ESTATE	ACRES
8	Fee Simple	86
	Temporary Work Area Easement	30
	Totals:	90.0

e. Map of Possible Areas of Impact Due to Construction

The following map represents the possible areas of impact due to construction. There are currently no references to landowner boundaries. There is also no reference as to the location of these project areas. Please refer to the location map for comments for State and County determination. Future reports will include the applicable Section, Township, and Range details.

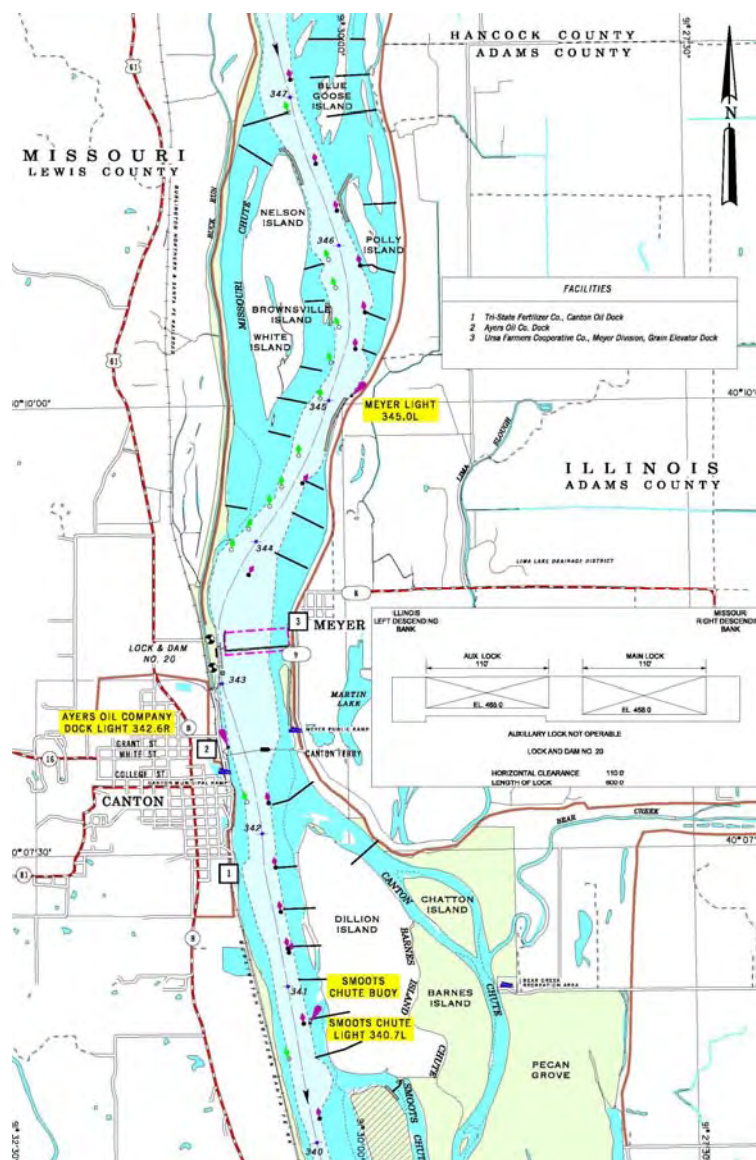


6. Mississippi River – Lock and Dam 20

a. Location

Lock and Dam 20 is located slightly upstream of Canton, Missouri at the River Mile 343.2, above the Ohio River. The Lock Master office and operating functions of the lock are situated on the Missouri side (right descending bank) of the Mississippi River, in Lewis County, Missouri. The acquisition area's involved in Lock 20, are within Lewis County, Missouri and Adams County, Illinois.

Both Lewis and Adams County's are rural in nature, having primary land uses of agricultural crop production.



Lock and Dam 20 Location Map

b. Project Description and Rationale

The Real Estate acquisition requirements for this location include two plans with some overlapping requirements. The Federal Government already owns some of the required lands. Both plans involve either a lock extension or new lock construction. Determination of actual boundaries of Federally owned lands and privately owned lands have not been made. All of the following information is based entirely on assumption and is to be utilized for initial planning purposes only. The acreages have been rounded.

c. Plan 2R Option, Lock Extension

The Real Estate requirements for Plan 2R include the following:

- On-site: 18 acres of riverfront that is partially developed with a City of Canton operated campground. The campground includes 23 basic sites, with concrete pads and electric service. Water is available via a community faucet that is centrally located. The street is asphalt covered, however turn around area's are gravel surfaced. The campground also features a playground and a pavilion. This campground is situated downstream of the lock, on the Missouri side of the Mississippi River. The campground and the pavilion will require relocation. These lands would be purchased in Fee.
- Off-site: 30 acres of unidentified staging area. The staging area is required for 6 years, and would most likely be in close proximity, on the Missouri side. As a result, the area selected would most likely be agricultural in nature. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.
- Disposal: 9 acres for a disposal site (for disposal of excavated material) (site D), is situated on the Illinois side and is characterized as woodlands. These lands would be purchased in Fee.
- Mitigation: As much as 88 acres of mitigation area is required for this plan. The site has not been identified, however woodland is the most likely area type of land sought (Missouri side).
- Owners: 8 owners are estimated to be affected by this plan.

d. Baseline Cost Estimate for Plan 2R

The estimated value for LERRD at Lock and Dam No. 20 Plan 2R is as follows:

Lands and Damages:	\$ 370,000
PL 91-646 (Relocation Assistance)	\$ 30,000
Acquisition/Administrative Costs	<u>\$ 160,000</u>
TOTAL	\$ 560,000

e. Summary of Estates and Acres Required

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
	Fee Simple	115
	Temporary Work Area Easement	<u>30</u>
8	Totals:	145

f. Plan 3R Option, New Lock

The Real Estate requirements for Plan 3R include the following

- On-site: 26 acres of on-site real estate is required for this plan. This area contains the 18 acres that include the campground and ferry operation described above. The 8 acres of remaining area, is described as woodlands. This area is situated upstream of the lock, on the Missouri side of the Mississippi River. These lands would be purchased in fee and would require relocation of the campground
- Off-site: 30 acres of unidentified staging area. The staging area is required for 6 years, and would most likely be in close proximity on the Missouri side. As a result, the area selected would most likely be agricultural in nature. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.
- Disposal: A total of 128 acres for a disposal site (for disposal of excavated material) is required for this plan. The area is made of 50 acres of agricultural land in Illinois; 74 acres of agricultural land in Illinois; and 4 acres of agricultural land, in Missouri. These lands would be purchased in Fee.
- Mitigation: As much as 68 acres of mitigation area is required for this plan. The site has not been identified, however woodland is the most likely area type of land sought (Missouri side). These lands would be purchased in Fee.
- Owners: 10 owners are estimated to be affected by this plan.

g. Baseline Cost Estimate for Plan 3R

The estimated value for LERRD at Lock and Dam No. 20 Plan 3R is as follows:

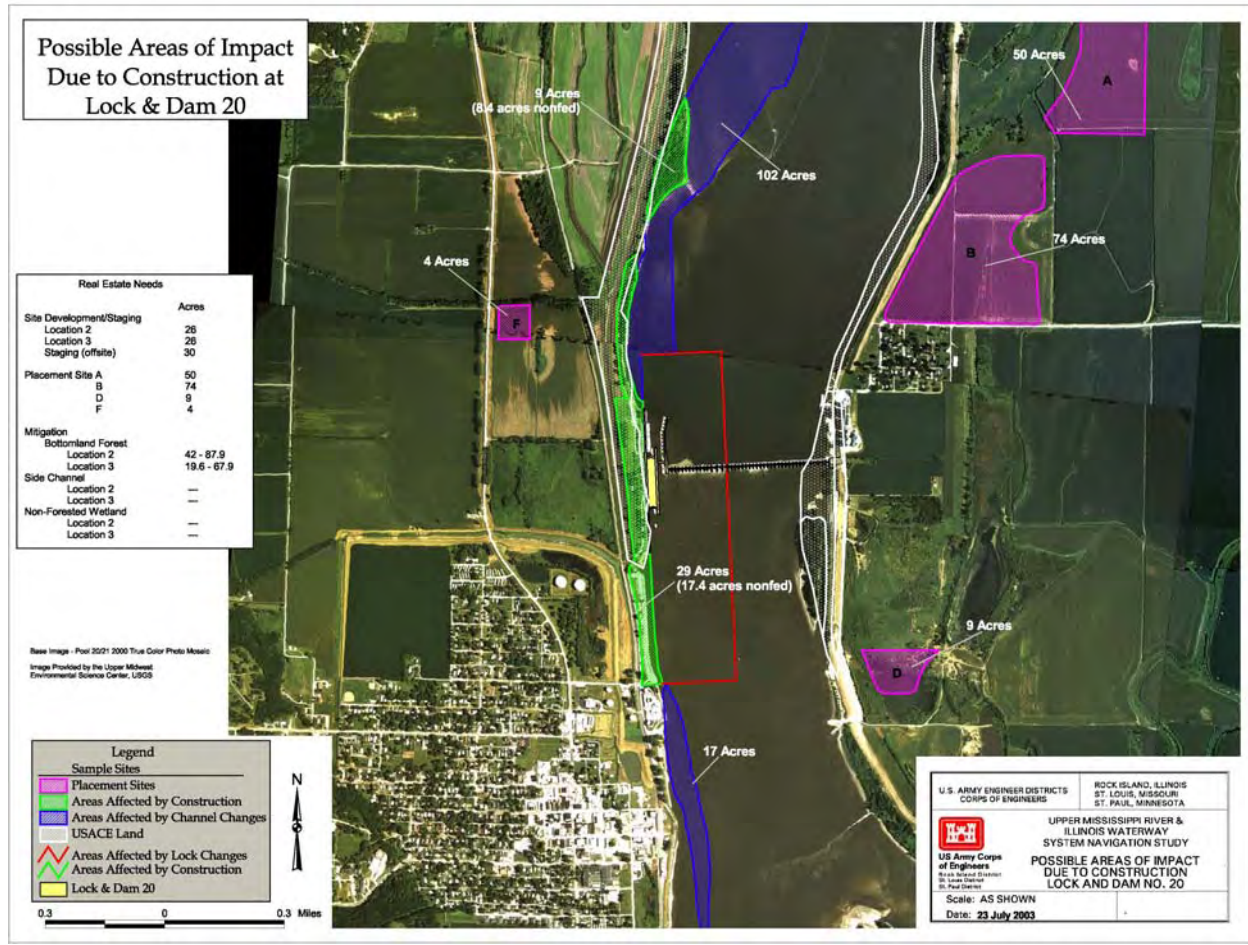
Lands and Damages	\$ 810,000
PL 91-646 (Relocation Assistance)	\$ 30,000
Acquisition/Administrative Costs	<u>\$ 160,000</u>
TOTAL	\$1,000,000

h. Summary of Estates and Acres Required

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
	Fee Simple	222
	Temporary Work Area Easement	<u>30</u>
8	Totals:	252

i. Map of Possible Areas of Impact Due to Construction

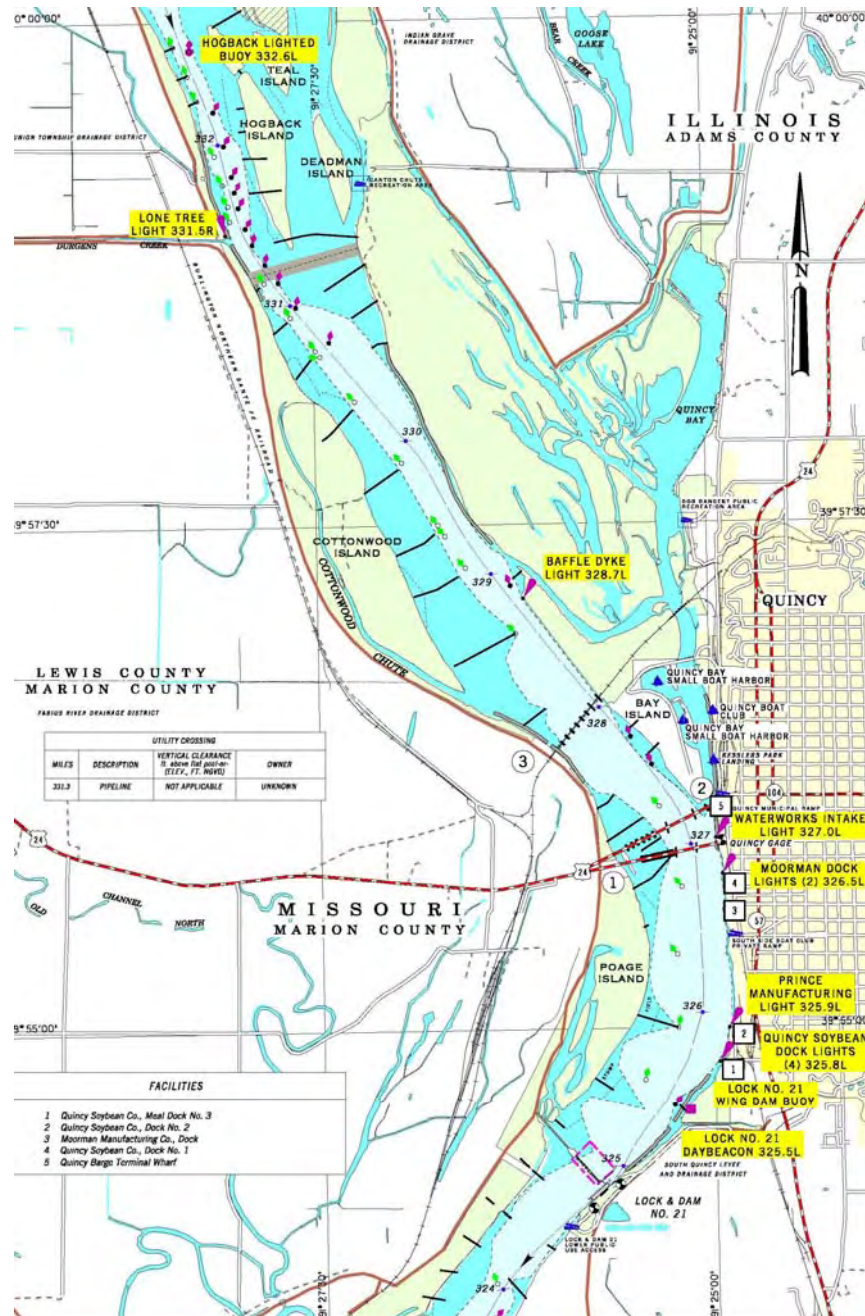
The following map represents the possible areas of impact due to construction. There are currently no references to landowner boundaries. There is also no reference as to the location of these project areas. Please refer to the location map for comments for State and County determination. Future reports will include the applicable Section, Township, and Range details.



7. Mississippi River – Lock and Dam 21

a. Location

Lock and Dam 21 is located slightly downstream of Quincy, Illinois at River Mile 324.9, above the Ohio River. The Lock Master office and operating functions of the lock are situated on the Illinois side (left descending bank) of the Mississippi River, in Adams County. The acquisition area's involved in Lock 21, are within Adams County, Illinois.



Lock and Dam 21 Location Map

b. Project Description and Rationale

The Real estate acquisition requirements for Lock 21 include two plans with some overlapping requirements. Both plans involve either a lock extension or new lock construction alternative. The Federal Government already owns some of the required lands. The Federally owned parcels are not included in the cost estimate. Determination of actual boundaries of Federally owned lands and privately owned lands have not been made. All of the following information is based entirely on assumption and is to be utilized for initial planning purposes only. The acreages have been rounded.

c. Plan 2R Option, Lock Extension

The Real Estate requirements for Plan 2R include the following:

- On-site: 1 acre of riverfront that is comprised of industrial land on the upstream portion and 8 acres of riverfront recreational land on the downstream requirements. These areas would be purchased in Fee
- The upstream parcel includes a portion of a barge loading facility. The downstream portion includes a boat launch. These facilities would require relocation. Further investigation would be necessary to determine if these items are on Government Owned lands under a Lease Agreement.
- Off-site: 30 acres of unidentified staging area. The staging area is required for 6 years, and would most likely be in close proximity, on the Illinois side. As a result, the area selected would most likely be agricultural in nature. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.
- Disposal: There are no disposal sites (for disposal of excavated material) identified for this plan.
- Mitigation: As much as 213 acres of mitigation area is required for this plan. The site has not been identified, however woodland is the most likely area type of land sought (Illinois side).
- A 2-acre side channel is also required for this plan. The site has not been identified, however it is assumed that the location will be on the Illinois side and would most likely be industrial type land.
- Owners: 11 owners are estimated to be affected by this plan.

d. Baseline Cost Estimate for Plan 2R

The estimated value for LERRD at Lock and Dam No. 21 – Plan 2R is as follows:

Lands and Damages	\$1,700,000
PL 91-646 (Relocation Assistance)	\$ 30,000
Acquisition/Administrative Costs	<u>\$ 220,000</u>
TOTAL	\$1,950,000

e. Summary of Estates and Acres Required for Plan 2R

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
	Fee Simple	222
	Temporary Work Area Easement	<u>30</u>
11	Totals	252

f. Plan 3R Option, New Lock

The Real Estate requirements for Plan 3R include the following

- On-site: 8 acres of riverfront that is comprised with 1 acre of industrial land on the upstream portion and 8 acres of riverfront recreational land on the downstream requirements. These lands would be acquired in Fee.
- The upstream parcel includes a portion of a barge loading facility. The downstream portion of the on-site requirement includes a boat launch. These items would require relocation. Further investigation would be necessary to determine if these items are on Government Owned lands under a Lease Agreement.
- Off-site: 30 acres of unidentified staging area. The staging area is required for 6 years, and would most likely be in close proximity on the Illinois side. As a result, the area selected would most likely be agricultural in nature. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.
- Disposal: A 15-acre disposal site (for excavated material) is identified for this Plan (Site A). The site is situated east of the City of Quincy Waste Water Treatment Plant. The site has historically been in crop production. This site would be acquired in Fee.
- Mitigation: As much as 213 acres of mitigation area is required for this plan. The site has not been identified, however agriculture is the most likely area type of land sought (Illinois side). These lands would be acquired in Fee.

Owners: 9 owners are estimated to be affected by this plan.

g. Baseline Cost Estimate for Plan 3R

The estimated value for LERRD at Lock and Dam No. 21 – Plan 3R is as follows:

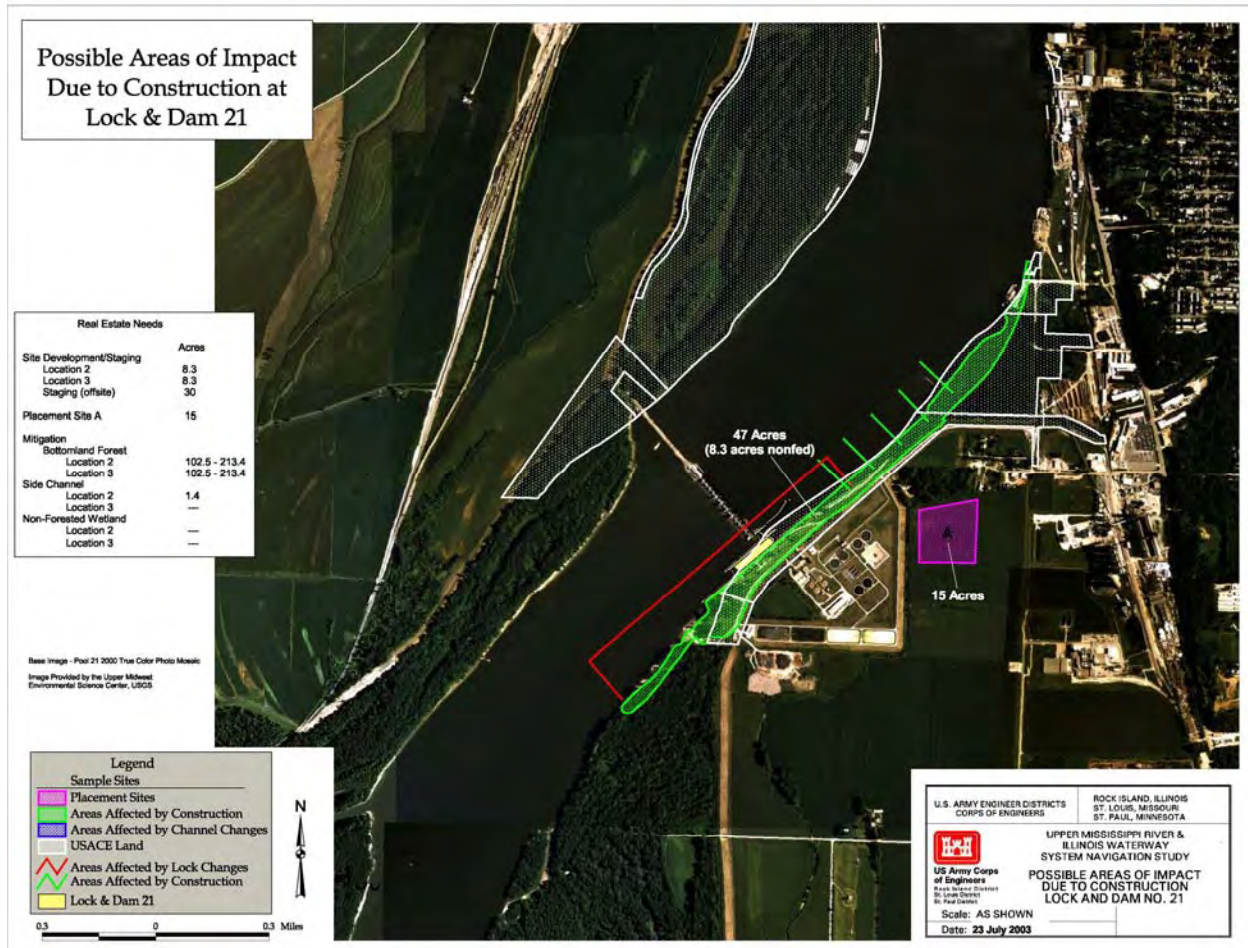
Lands and Damages	\$1,660,000
PL 91-646 (Relocation Assistance)	\$ 30,000
Acquisition/Administrative Costs	<u>\$ 180,000</u>
TOTAL	\$1,875,000

h. Summary of Estates and Acres Required for Plan 3R

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
	Fee Simple	245
	Temporary Work Area Easement	<u>30</u>
11	Totals	275

i. Map of Possible Areas of Impact Due to Construction

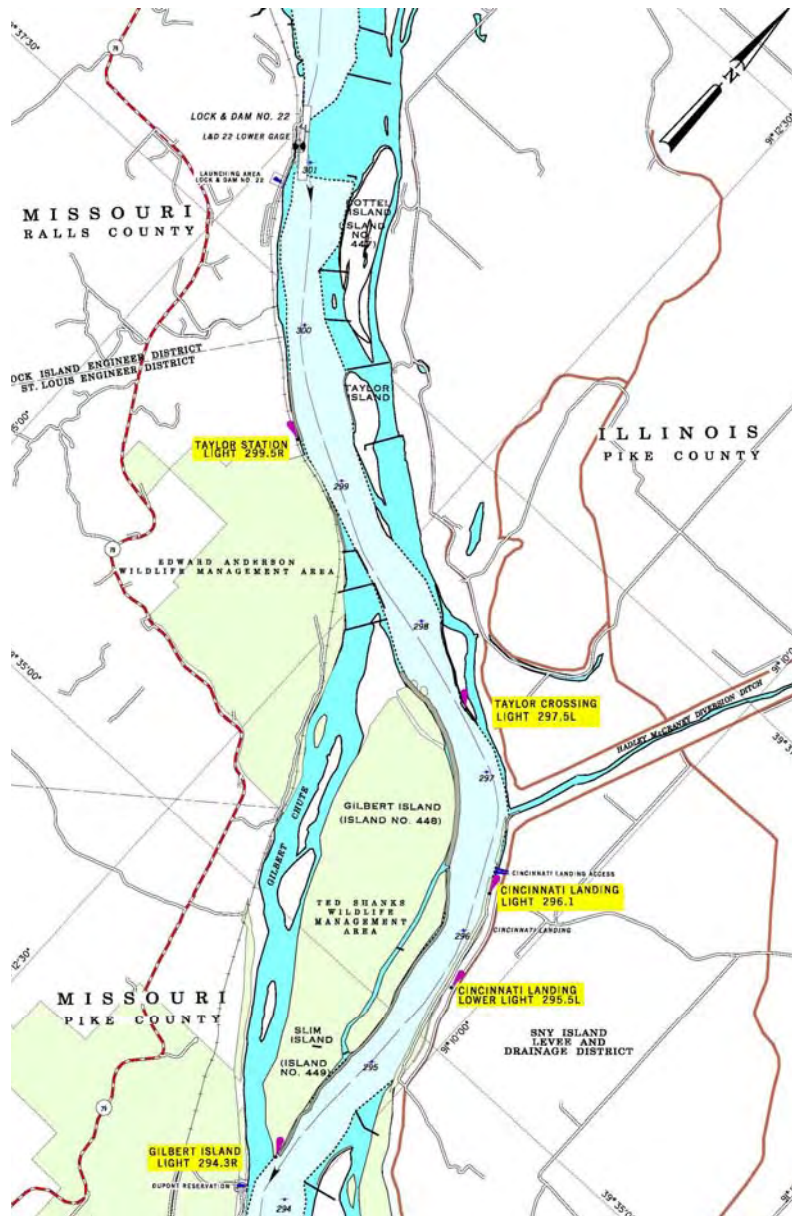
The following map represents the possible areas of impact due to construction. There are currently no references to landowner boundaries. There is also no reference as to the location of these project areas. Please refer to the location map for comments for State and County determination. Future reports will include the applicable Section, Township, and Range details.



8. Mississippi River – Lock and Dam 22

a. Location

Lock and Dam 22 is located in unincorporated Saverton, Missouri. The Lock Master office and operating functions of the lock are situated on the Missouri side (right descending bank) of the Mississippi River, in Ralls County, Missouri.



Lock and Dam 22 Location Map

b. Project Description and Rationale

The Real estate acquisition requirements for Lock 22 include two plans with some overlapping requirements. Plans involve either a lock extension or new lock construction. The Federal Government already owns much of the required lands. The Federally owned parcels are not included in the cost estimate. Determination of actual boundaries of Federally owned lands and privately owned lands have not been made. All of the following information is based entirely on assumption and is to be utilized for initial planning purposes only. The acreages have been rounded.

c. Plan 2R Option, Lock Extension

The Real Estate requirements for Plan 2R include the following:

- On-site: 20 acres of riverfront recreational land. The area of the lock is wooded and the area downstream of the lock is open gravel bar. The required sites are situated above and below the dam, on the Missouri side of the Mississippi River.
- Off-site: 30 acres of unidentified staging area. The staging area is required for 6 years, and would most likely be in close proximity, on the Missouri side. As a result, the area selected would most likely be agricultural in nature. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.
- Disposal: There are no disposal sites (for disposal of excavated material) for this plan.
- Mitigation: As much as 161 acres woodlands are required for mitigation areas in this plan. The site has not been identified, however it is assumed that the site will be on the Missouri side
- An unidentified 45-acre side channel is also required. It is assumed that the site will be on the lock side (Missouri) of the river. Assuming the channel to be upstream of the lock, the site would most likely be agricultural in nature.
- Owners: 10 owners are estimated to be affected by this plan.

d. Baseline Cost Estimate for Plan 2R

The estimated value for LERRD at Lock and Dam No. 22 – Plan 2R is as follows:

Lands and Damages	\$ 562,000
PL 91-646 (Relocation Assistance)	\$ 0
Acquisition/Administrative Costs	<u>\$ 200,000</u>
TOTAL	\$ 762,000

e. Summary of Estates and Acres Required for Plan 2R

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
	Fee Simple	226
	Temporary Work Area Easement	<u>30</u>
10	Totals:	256

f. Plan 3R Option, New Lock

The Real Estate requirements for Lock 22 Plan 3R include the following

- On-site: 20 acres of riverfront recreational land. The area upstream of the lock is wooded and the area downstream of the lock is open gravel bar. The required sites are situated above and below the dam, on the Missouri side of the Mississippi River. The lands would be acquired in Fee.
- Off-site: 30 acres of unidentified staging area. The staging area is required for 6 years, and would most likely be in close proximity on the Missouri side. As a result, the area selected would most likely be agricultural in nature. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.
- Disposal: 5 acres of disposal site (for disposal of excavated material) is required for this plan. The 5 acres is situated along the access road to the lock, and is currently developed with a home and a community center, which is a converted home. These items would require relocation. The lands would be acquired in Fee.
- Mitigation: It is estimated that 161 acres of woodlands are required for mitigation areas in this plan. The site has not been identified, however, it is assumed that the site will be on the Missouri side. These lands would be acquired in Fee.
- An unidentified 45 acres of side channel is also required. It is assumed that the site will be on the lock side (Missouri) of the river. Assuming the channel to be upstream of the lock, the site would most likely be agricultural in nature.

Owners: 13 owners are estimated to be affected by this plan.

g. Baseline Cost Estimate for Plan 3R

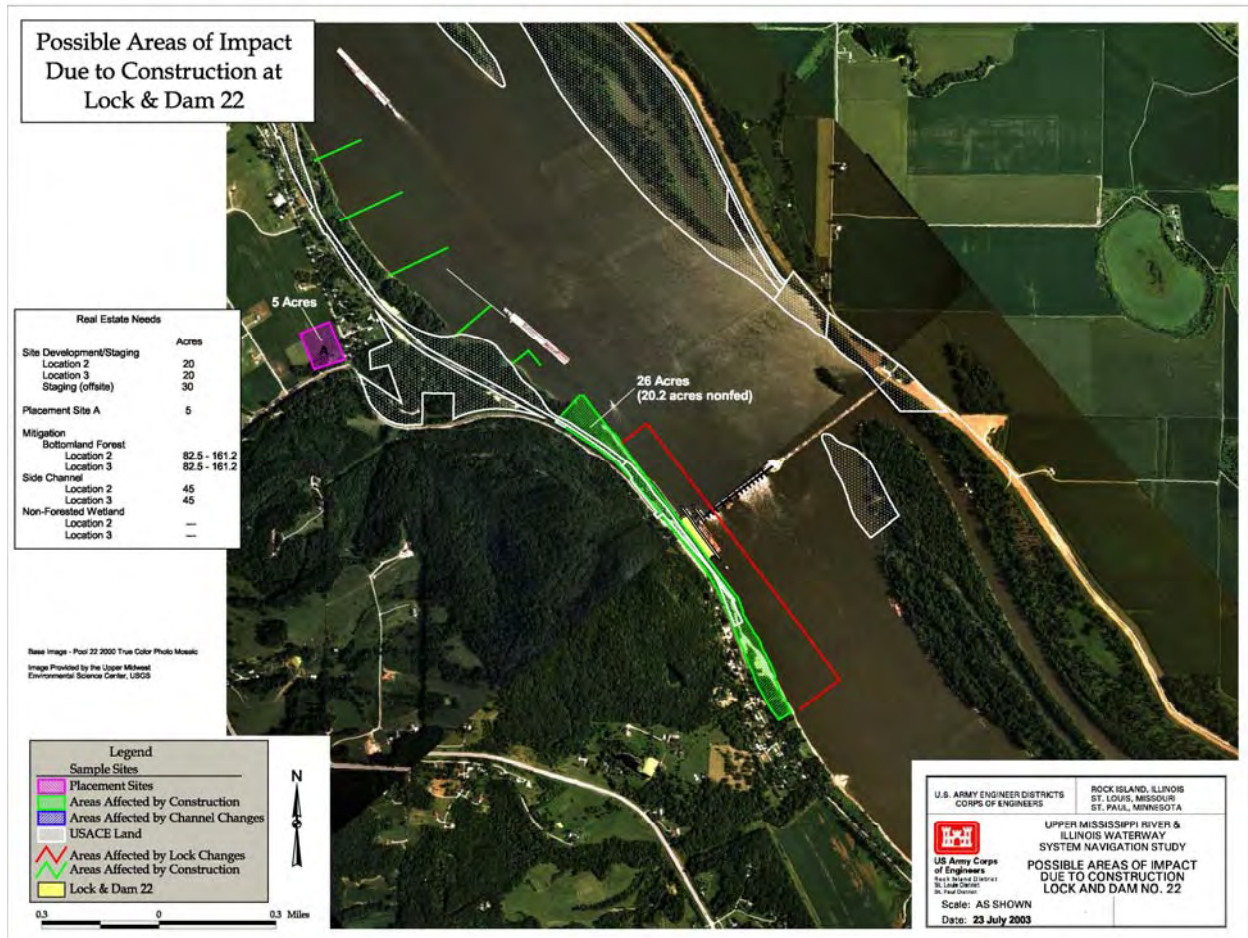
Lands and Damages	\$ 620,000
PL 91-646 (Relocation Assistance)	\$ 55,000
Acquisition/Administrative Costs	<u>\$ 260,000</u>
TOTAL	\$ 935,000

h. Summary of Estates and Acres Required for Plan 3R

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
	Fee Simple	231
	Temporary Work Area Easement	<u>30</u>
13	Totals:	260

i. Map of Possible Areas of Impact Due to Construction

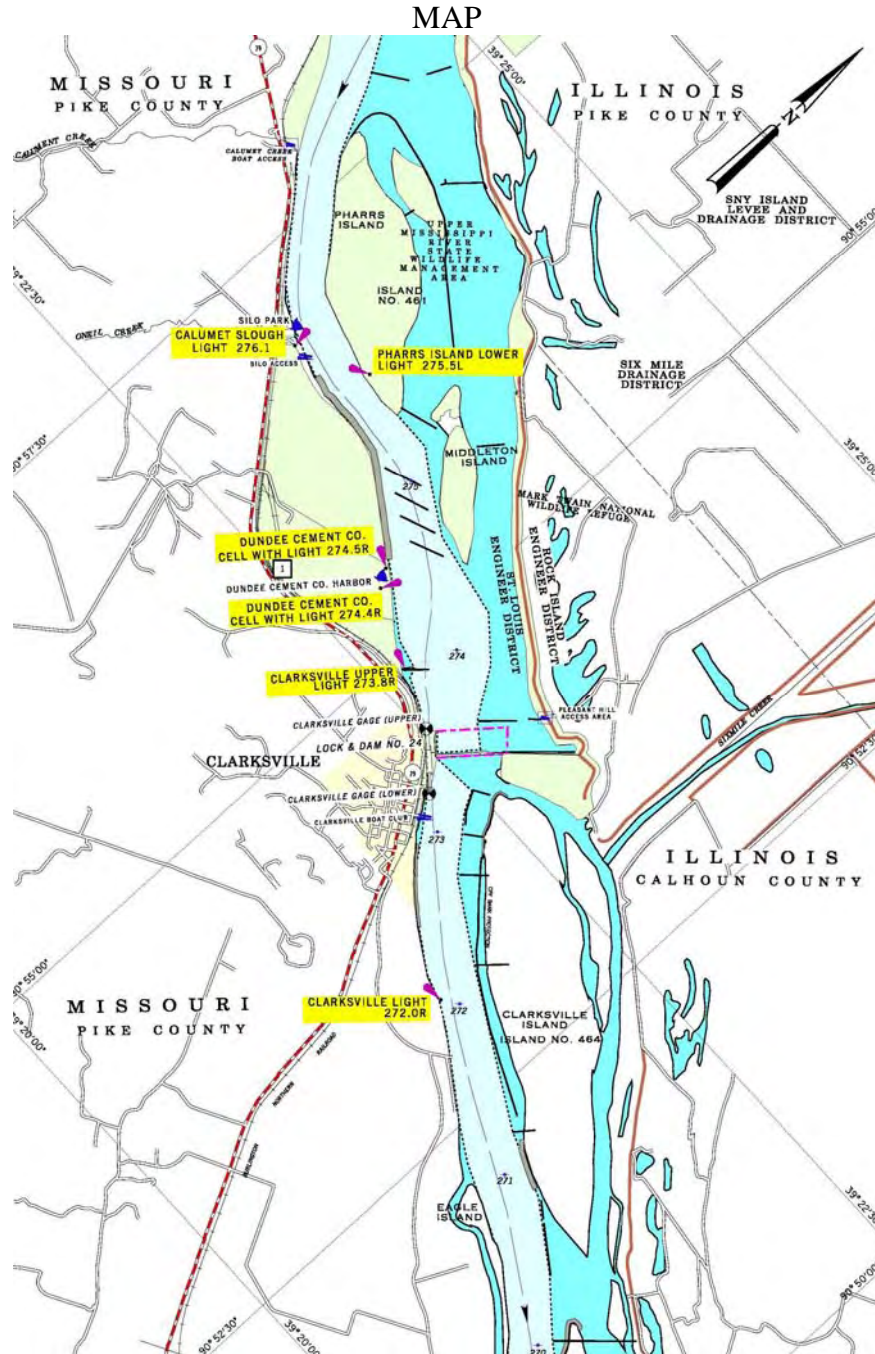
The following map represents the possible areas of impact due to construction. There are currently no references to landowner boundaries. There is also no reference as to the location of these project areas. Please refer to the location map for comments for State and County determination. Future reports will include the applicable Section, Township, and Range details.



9. Mississippi River – Lock and Dam 24

a. Location

Lock and Dam 24 is located adjacent to the old downtown of Clarksville, Missouri at the River Mile 273.5, above the Ohio River. The Lock Master Office and operating functions of the lock are situated on the Missouri side (right descending bank) of the Mississippi River, in Pike County. The acquisition areas involved in Lock 24 are within Pike County, Missouri.



b. Project Description and Rationale

The Real estate acquisition requirements for Lock 24 include two plans with some overlapping requirements. Plans involve either a lock extension or new lock construction alternative. The Federal Government already owns much of the required lands. The Federally owned parcels are not included in the cost estimate. Determination of actual boundaries of Federally owned lands and privately owned lands have not been made. All of the following information is based entirely on assumption and is to be utilized for initial planning purposes only. The acreages have been rounded.

c. Plan 2R Option, Lock Extension

The Real Estate requirements for Lock 24 - Plan 2R include the following:

On-site: 3 acres of riverfront that is partially developed with an asphalt covered city street. The remainder of the 3.00 acres is riverfront recreational. The required site is situated above and below the dam, on the Missouri side of the Mississippi River. These lands would be acquired in Fee.

A 25 acre parcel situated downstream of the lock and dam site is also required for a staging area. The staging area is temporary in nature, being required for only 6 years. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.

The site is currently being used as a placement site for the existing lock improvements. Prior to this use, the site was in crop production. Light industrial uses and mooring right lease are a potential for this site. To date however, no such uses have been identified on this parcel.

Off-site: There are no identified off site requirements in this plan.

Disposal: 7 acres for a disposal site (for disposal of excavated material) (Site A), is situated adjacent to (south of) the 25-acre staging area. This site is in crop production, and is a portion of a much larger tract. This land would be acquired in Fee.

Mitigation: An estimated 9 acres woodlands are required for mitigation areas in this plan. The site had not been identified, however it is assumed that the site will be on the Missouri side.

An unidentified 5-acre side channel is also required. It is assumed that the site will be on the lock side (Missouri) of the river. Assuming the channel to be upstream of the lock, the site would most likely be agricultural in nature.

All of these lands for mitigation would be acquired in Fee.

Owners: 7 owners are estimated to be affected by this plan.

d. Baseline Cost Estimate for Plan 2R

The estimated value for LERRD at Lock and Dam No. 24 – Plan 2R is as follows:

Lands and Damages	\$ 117,000
PL 91-646 (Relocation Assistance)	\$ 4,000
Acquisition/Administrative Costs	<u>\$ 140,000</u>
TOTAL	\$ 261,000

e. Summary of Estates and Acres Required for Plan 2R

TRACTS	ESTATE	ACRES
	Temporary Work Area Easement	25
	Fee Simple	<u>24</u>
7	Totals:	49

f. Plan 3R Option, New Lock

The Real Estate requirements for Lock 24 - Plan 3R include the following

- On-site: 3.00 acres of riverfront that is partially developed with an asphalt covered city street. The remainder of the 3.00 acres is riverfront recreational. The required site is situated above and below the dam, on the Missouri side of the Mississippi River. These lands would be acquired in Fee.
- Off-site: There are no identified off-site requirements in this plan
- Disposal: 7 acres for a disposal site (for disposal of excavated material) (Site A), is situated to (south of) the 25-acre staging area. This site is in crop production, and is a portion of a much larger tract. These lands would be acquired in Fee.
- Mitigation: An estimated 9 acres woodlands are required for mitigation areas in the plan. The site has not been identified, however it is assumed that the site will be on the Missouri side.
- An unidentified 7-acre side channel is also required. It is assumed that the site will be on the lock side (Missouri) of the river. Assuming the channel to be upstream of the lock, the site would most likely be agricultural in nature.
- All mitigation lands would be acquired in Fee.
- Owners: 8 owners are estimated to be affected by this plan.

g. Baseline Cost Estimate for Plan 3R

The estimated value for LERRD at Lock and Dam No. 24-Plan 3R is as follows:

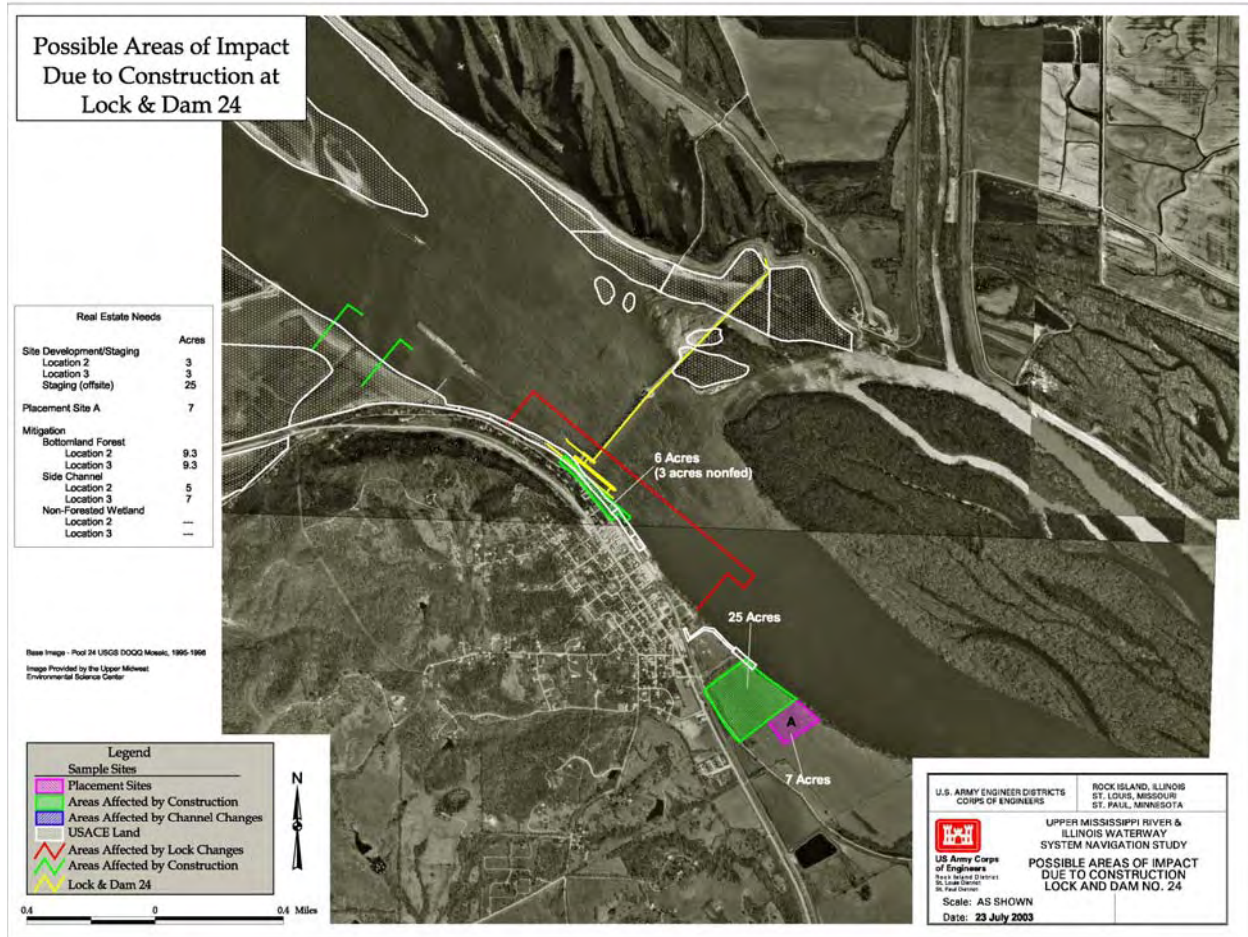
Lands and Damages	\$ 123,000
PL 91-646 (Relocation Benefits)	\$ 4,000
Acquisition/Administrative Costs	<u>\$ 160,000</u>
TOTAL	\$ 287,000

h. Summary of Estates and Acres Required for Plan 3R

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
	Temporary Work Area Easement	25
	Fee Simple	<u>26</u>
8	Totals:	51

i. Map of Possible Areas of Impact Due to Construction

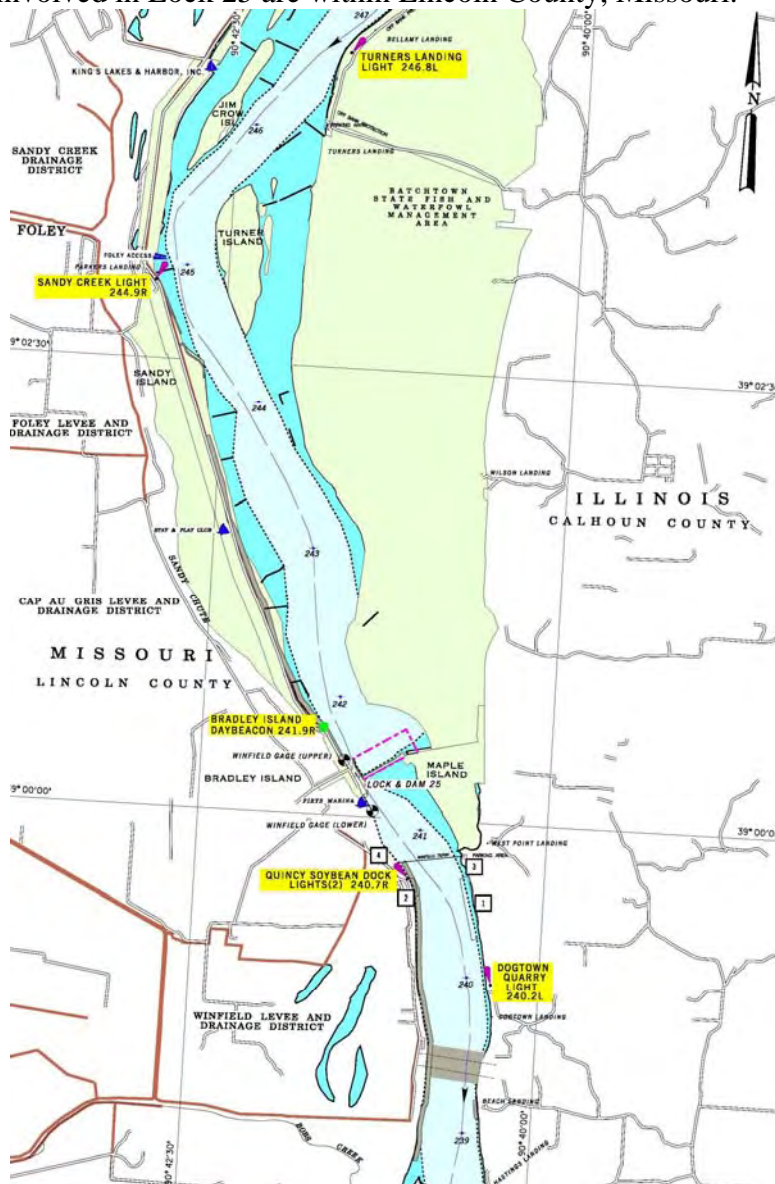
The following map represents the possible areas of impact due to construction. There are currently no references to landowner boundaries. There is also no reference as to the location of these project areas. Please refer to the location map for comments for State and County determination. Future reports will include the applicable Section, Township, and Range details.



10. Mississippi River – Lock and Dam 25

a. Location

Lock and Dam 25 is located just east of Winfield, Missouri at the River Mile 241.1, above the Ohio River. The Lock Master office and operating functions of the lock are situated on the Missouri side (right descending bank) of the Mississippi River, in Lincoln County. The acquisition areas involved in Lock 25 are within Lincoln County, Missouri.



Lock and Dam 25 Location Map

b. Project Description and Rationale

The Real estate acquisition requirements for Lock 25 include two plans with some overlapping requirements. Plans involve either a lock extension or new lock construction alternative. The Federal Government already owns much of the required lands. The Federally owned parcels are not included in the cost estimate. Determination of actual boundaries of Federally owned lands and privately owned lands have not been made. All of the following information is based entirely on assumption and is to be utilized for initial planning purposes only. The acreages have been rounded.

c. Plan 2R Option, Lock Extension

The Real Estate requirements for Plan 2R include the following:

On-site: 2.0 acres of downstream riverfront that is developed with 3 cabins, a ferry operation and a barge loading facility. The area is considered to be recreational woodlands. The cabins would either be a buyout or require relocation as necessary. The barge loading facility could be relocated downstream of the existing location. The ferry operation could also relocate downstream. These lands would be acquired in Fee.

A 10-acre parcel situated west of the lock and dam site is also required for a staging area. This site is currently used for crop production. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.

Off-site: 30 acres of unidentified staging area. The location is unknown, however the area near the lock is primarily agricultural. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.

Disposal: 2 acres for a disposal site (for disposal of excavated material) (Site A), is situated south of the lock area. The site is considered to be woodlands as it is returning to a natural state. These lands would be acquired in Fee.

Mitigation: An estimated 11 acres woodlands are required for mitigations areas in this plan. The site has not been identified, however it is assumed that the site will be on the Missouri side.

An unidentified 7-acre side channel is also required. It is assumed that the site will be on the lock side (Missouri) of the river. Assuming the channel to be upstream of the lock, the site would most likely be agricultural in nature.

All of the mitigation lands would be acquired in Fee.

Owners: 12 owners are estimated to be affected by this plan.

d. Baseline Cost Estimate for Plan 2R

The estimated value for LERRD at Lock and Dam No. 25-Plan 2R is as follows:

Lands and Damages	\$ 600,000
PL 91-646 (Relocation Assistance)	\$ 120,000
Acquisition/Administrative Costs	<u>\$ 240,000</u>
TOTAL	\$ 960,000

e. Summary of Estates and Acres Required for Plan 2R

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
	Temporary Work Area Easement	30
	Fee Simple	<u>32</u>
12	Totals:	62

f. Plan 3R Option, New Lock

The Real Estate requirements for Lock 25 - Plan 3R include the following

- On-site: 2.0 acres of downstream riverfront that is developed with 3 cabins, a ferry operation and a barge loading facility. The area is considered to be recreational woodlands. The cabins would require buyout or relocation as necessary. The barge loading facility could be relocated downstream of the existing location. The ferry operation could also relocate downstream.
- A 10-acre parcel situated west of the lock and dam site is also required for a staging area. This site is currently used for crop production.
- Off-site: 30 acres of unidentified staging area. The staging area is required for 6 years, and would most likely be in close proximity on the Missouri side. As a result, the area selected would most likely be agricultural in nature. The estate to be utilized will be a Temporary Work Area Easement with a term of 6 years.
- Disposal: 2 acres for a disposal site (for disposal of excavated material) (Site A) is situated south of the lock area. The site is considered to be woodlands as it is returning to a natural state.
- Mitigation: An estimated 28 acres woodlands are required for mitigation areas in this plan. The site has not been identified, however, it is assumed that the site will be on the Missouri side.

An unidentified 7-acre side channel is also required. It is assumed that the site will be on the lock side (Missouri) of the river. Assuming the channel to be upstream of the lock, the site would most likely be agricultural in nature.

Owners: 13 owners are estimated to be affected by this plan.

g. Baseline Cost Estimate for Plan 3R

The estimated value for LERRD at Lock and Dam No. 25-Plan 3R is as follows:

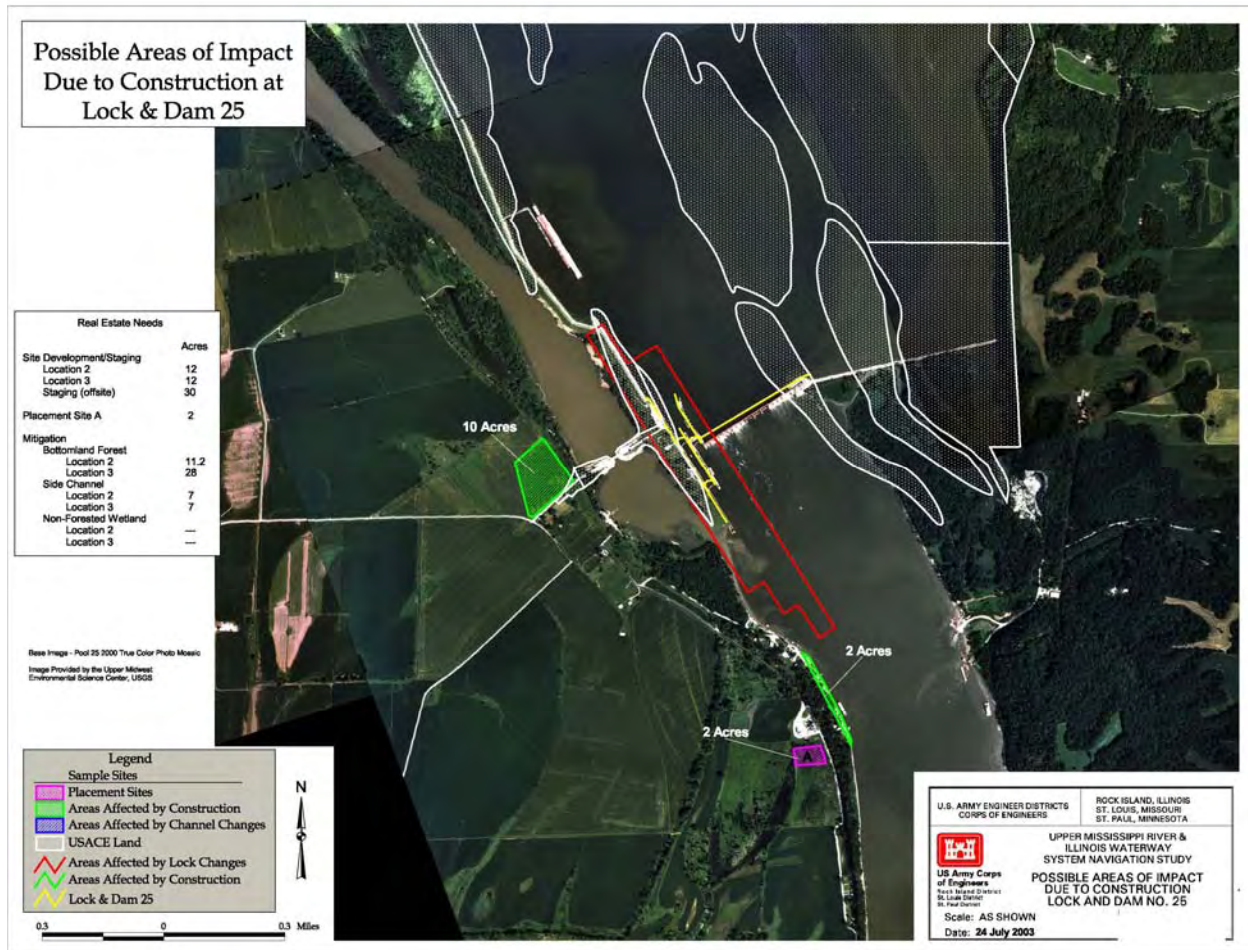
Lands and Damages	\$ 670,000
PL 91-646 (Relocation Assistance)	\$ 120,000
Acquisition/Administrative Costs	<u>\$ 260,000</u>
TOTAL	\$1,050,000

h. Summary of Estates and Acres Required for Plan 3R

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
	Temporary Work Area Easement	30
	Fee Simple	<u>49</u>
13	Totals:	79

e. Map of Possible Areas of Impact Due to Construction

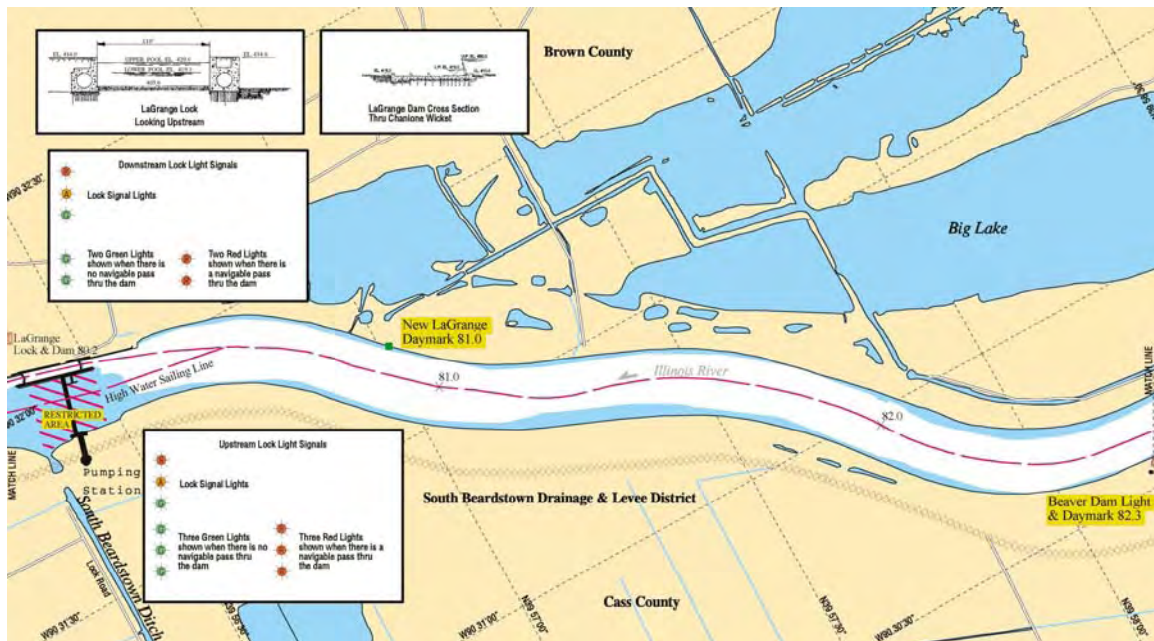
The following map represents the possible areas of impact due to construction. There are currently no references to landowner boundaries. There is also no reference as to the location of these project areas. Please refer to the location map for comments for State and County determination. Future reports will include the applicable Section, Township, and Range details.



11. Illinois River – LaGrange Lock and Dam

a. Location

The LaGrange Lock and Dam is located in the unincorporated Village of LaGrange, Illinois. The Lock Master office and operating functions of the lock are located on the left bank of the Illinois River, in Brown County, Illinois.



LaGrange Lock and Dam Location Map

b. Project Description and Rationale

The plan involves new lock construction. The Real Estate acquisition requirements for the LaGrange Lock include lands that are already owned by the United States. The Federally owned parcels are not included in this cost estimate. Determination of actual boundaries of Federally owned lands and privately owned lands have not been made. All of the following information is based entirely on assumption and is to be utilized for initial planning purposes only. The acreages have been rounded.

The real estate requirements for the LaGrange Lock include the following:

On-site: 73.00 acres of riverfront recreational land. The area upstream of the lock is wooded and includes a portion of a duck hunting lake. The area adjacent to downstream of the lock is riverfront recreational (hunting wetlands). These lands would be acquired in Fee.

Off-site: There are no off-site requirements for this plan

Disposal: 117 acres for a disposal site (for disposal of excavated material) of riverfront recreational land, consisting of wetlands (Sites A, B & C). These lands would be acquired in Fee.

Mitigation: An estimated 217 acres woodlands are required for mitigation areas in this plan. The site has not been identified, however it is assumed that the site will be on the western side of the Illinois Waterway.

An unidentified 24 acres of wetlands is also required. It is assumed that the site will be on the lock side of the river.

All mitigation lands would be acquired in Fee.

Owners: 10 owners are estimated to be affected by this plan.

c. Baseline Cost Estimate

The estimated value for LERRD at the LaGrange Lock and Dam is as follows:

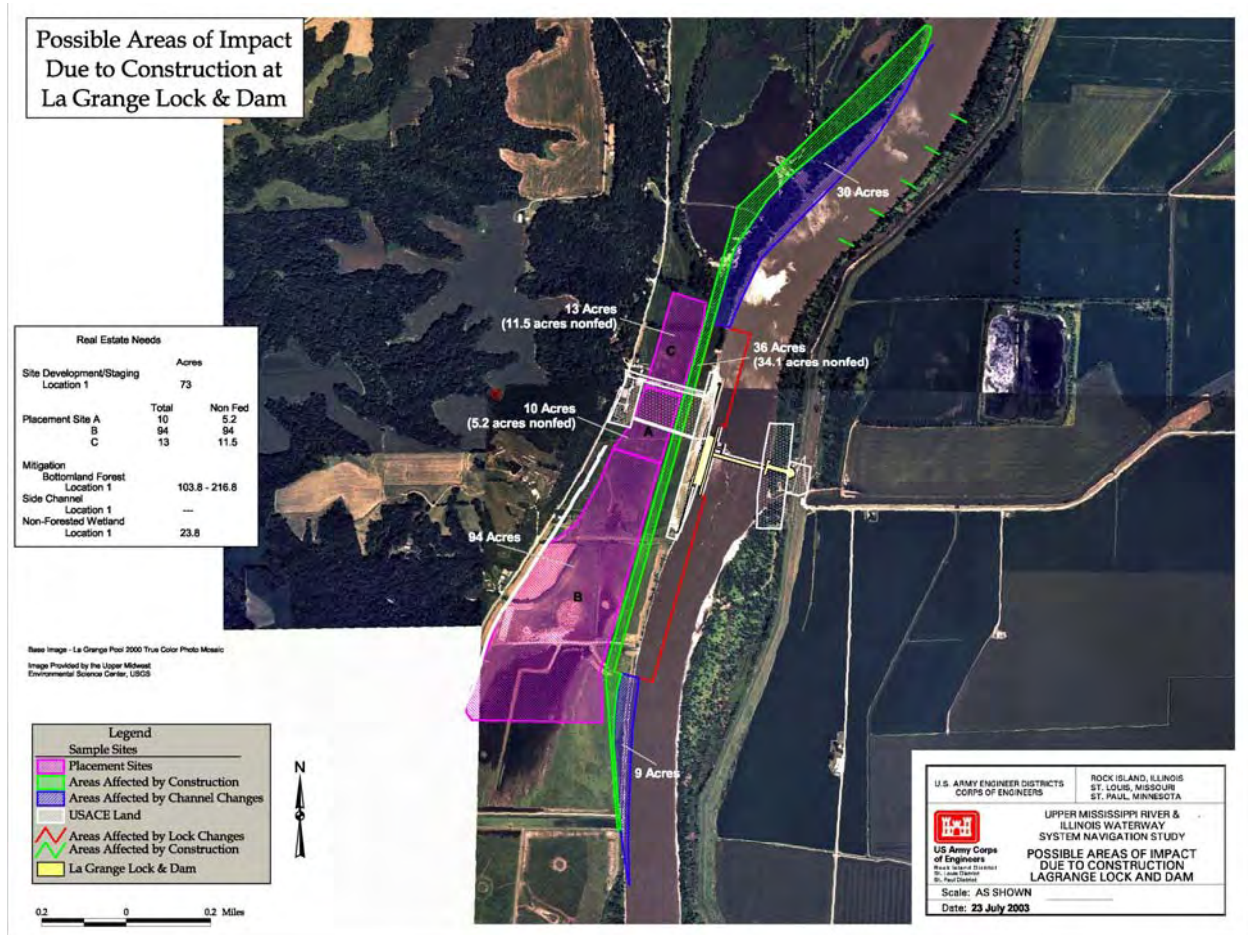
Lands and Damages	\$1,800,000
PL 91-646 (Relocation Assistance)	\$ 0
Acquisition/Administrative Costs	<u>\$ 200,000</u>
TOTAL	\$ 2,000,000

d. Summary of Estates and Acres Required

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
10	Fee Simple	<u>431.0</u>
	Totals:	431.0

e. Map of Possible Areas of Impact Due to Construction

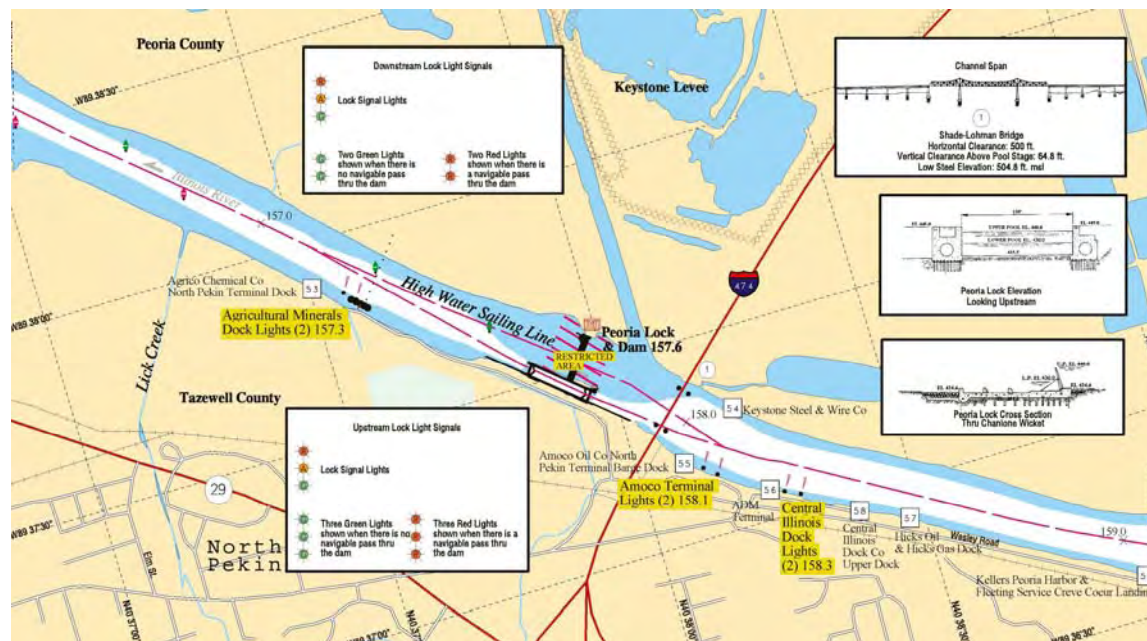
The following map represents the possible areas of impact due to construction. There are currently no references to landowner boundaries. There is also no reference as to the location of these project areas. Please refer to the location map for comments for State and County determination. Future reports will include the applicable Section, Township, and Range details.



12. Illinois River – Peoria Lock

a. Location

The Peoria Lock and Dam is located downstream of Peoria Illinois at the IWW River Mile 157.7. The Lock Master office and operating functions of the lock are situated on the eastern side of the Illinois River, in the City of Creve Coeur, and the county of Tazewell. The acquisition areas involved in the lock are along the eastern bank.



Peoria Lock and Dam Location Map

b. Project Description and Rationale

The plan includes the new lock construction. Determination of actual boundaries of Federally owned lands and privately owned lands have not been made. All of the following information is based entirely on assumption and is to be utilized for initial planning purposes only.

The Real Estate requirements for IWW – Peoria Lock - include the following

On-site: 22.5 acres of riverfront that is comprised of approximately 1.50 acres of industrial land, north of the Interstate 474 overpass. Approximately 1 acre of waste area is situated under the overpass (considered equal to recreational land). An estimated 10 acres of industrial land is situated along the eastern side of the lock area. The remaining 10 acres is comprised of forested recreational land, downstream of the lock. These lands would be acquired in Fee.

The upstream parcel north of the overpass includes portions of a barge loading facility. The downstream portion of the on-site requirement includes a boat launch. These lands would be acquired in Fee.

Off-site: There are no off-site requirements for this plan.

Disposal: 52 acres for a disposal site (for disposal of excavated material) is situated south of the lock area. The site is considered to be woodlands as it is returning to a natural state. These lands would be acquired in Fee.

Mitigation: A 20-acre parcel is required for mitigation in the plan. The site has not been identified, however recreational is the most likely type of land sought.

A 14-acre side channel is also required for this plan. The site has not been identified, however it is assumed that the location will be upstream or adjacent to the lock. This site would most likely be industrial type land.

All mitigation lands would be acquired in fee.

Owners: 13 owners are estimated to be affected by this plan.

c. Baseline Cost Estimate

The estimated value for LERRD at the Peoria Lock and Dam is as follows:

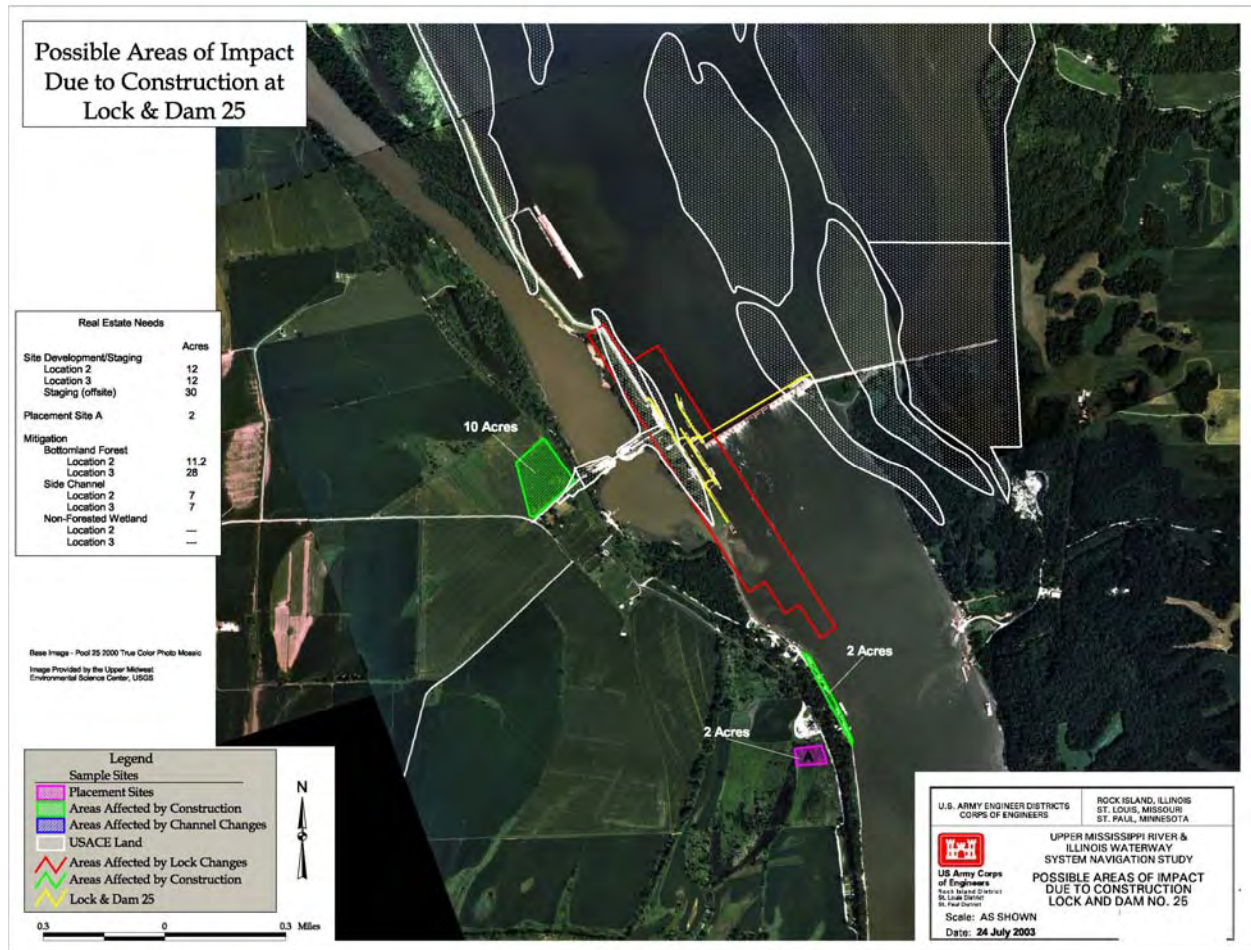
Lands and Damages	\$4,710,000
PL 91-646 (Relocation Assistance)	\$ 50,000
Acquisition/Administrative Costs	<u>\$ 160,000</u>
TOTAL	\$4,920,000

d. Summary of Estates and Acres Required

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
	Fee Simple	<u>108.5</u>
8	Totals:	108.5

e. Map of Possible Areas of Impact Due to Construction

The following map represents the possible areas of impact due to construction. There are currently no references to landowner boundaries. There is also no reference as to the location of these project areas. Please refer to the location map for comments for State and County determination. Future reports will include the applicable Section, Township, and Range details.



13. Environmental Component Feature

a. Location

The locations are based on Geomorphic Reach as follows:

Geomorphic Reach 1: (Pool 1-13)

2,000 to 9,000 acres

Geomorphic Reach 2: (Pool 14-26)

47,000 to 230,000 acres

Geomorphic Reach 3: (Middle Mississippi)

19,000 to 90,000 acres

Geomorphic Reach 4: (Illinois River)

20,000 to 100,000 acres

Determination of actual boundaries of Federally owned lands and privately owned lands have not been made. All of the following information is based entirely on assumption and is to be utilized for initial planning purposes only.

For bottomland restoration projects, fee simple would be the proposed estate per ER 405-1-12. Again as each project is proposed for implementation the issue of the proper estate to be acquired will be revisited.

The possible estates to be utilized for this component are listed in the Summary of Estates Required.

It is assumed that State agencies will cost share the Environmental Component Features. It is unknown at this time what State agencies will be involved.

Since these lands could not accurately be located or addressed there were several assumptions made in the establishment of estimated costs. The chart and information following shows the basis for these costs. The plan is to develop lands incrementally over the next 50 years (a total of 5 decades). There is uncertainty as to the numbers of landowners involved, locations, and additional Real Estate requirements needed therefore some assumptions were made. There are some concerns about the availability of Government owned lands in the Illinois Waterway Area. This is addressed in the Federally Owned Lands Section (Section 6). Any additional costs would be determined on a case-by-case basis. The following is based only on assumptions and estimate of land value over a period of 50 years:

Below are the real estate costs for Ecosystem Alternative D floodplain restoration (105,500 acres)					
REACH	Decades (1000s acres)				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
<u>Reach 1: Upper Impounded Reach (Pools 1-13)</u> Number of Projects: 21 Acres: 10,500 (projects are 500 acres is size for Pool 1-13 Reach) Lands and Damages: \$0 (It is assumed that no cost for lands would occur in this reach because projects are expected to occur primarily on Federally owned lands)	1	2	3.5	4	0
<u>Reach 2: Lower Impounded Reach (Pools 14-26)</u> Number of Projects: 10 Acres: 50,000 (5,000 acre projects) Lands and Damages: \$150,000,000 (Acquisition and Administrative costs are not included in this figure)	5	10	15	20	0
<u>Reach 3: Middle Mississippi Reach (Open River)</u> Number of Projects: 3 Acres: 15,000 Lands and Damages: \$45,000,000 (Acquisition and administrative costs are not included in this figure)	6	5	4	0	0
<u>Reach 4: Illinois Waterway</u> Number of Projects: 6 Acres: 30,000 Lands and Damages: \$90,000,000 (Acquisition and administrative costs are not included in this figure)	8	10	6	6	0
Total Lands and Damages: \$285,000,000 (Does not Include Acquisition and Administrative costs) TOTALS	20	27	28.5	30	0

b. Reach 1 Costs

It is assumed that no cost for lands would occur in this reach because projects are expected to occur primarily on Federally owned lands.

c. Reach 2 Costs

(1). Baseline Cost Estimate for Reach 2

The estimated value for LERRD at the Lower Impounded Reach (Pools 14-26) is as follows:

Lands and Damages	\$150,000,000
PL 91-646 (Relocation Assistance)	\$ Unknown
Acquisition/Administrative Costs	<u>\$ 4,000,000</u>
TOTAL	\$154,000,000

(2). Summary of Estates and Acres Required

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
200	Varies Totals:	<u>50,000</u> 50,000

d. Reach 3 Costs

(1). Baseline Cost Estimate for Reach 3

The estimated value for LERRD at Reach 3 (Middle Mississippi (Open River)) is as follows:

Lands and Damages	\$ 45,000,000
PL 91-646 (Relocation Assistance)	\$ Unknown
Acquisition/Administrative Costs	<u>\$ 1,200,000</u>
TOTAL	\$ 46,200,000

(2). Summary of Estates and Acres Required

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
	Varies	<u>15,000</u>
60	Totals:	15,000

e. Reach 4 Costs

(1). Baseline Cost Estimate for Reach 4

The estimated value for LERRD at Reach 4 (Illinois River) is as follows:

Lands and Damages	\$ 90,000,000
PL 91-646 (Relocation Assistance)	\$ Unknown
Acquisition/Administrative Costs	<u>\$ 2,400,000</u>
TOTAL	\$ 92,400,000

(2). Summary of Estates and Acres Required

<u>TRACTS</u>	<u>ESTATE</u>	<u>ACRES</u>
	Varies	<u>30,000</u>
120	Totals:	30,000

14. Consolidated Summary of Type and Number of Properties Affected by the Proposed Project.

The plan is currently based on assumptions and limitations. There have been no property data searches performed or detailed mapping performed. Each individual project area has data included that reflect the estimated type of properties affected. The Environmental Component areas have not been identified.

15. Summary of Estates Required:

a. The following standard Estates from ER 405-1-12 may be utilized at the Locks and Dams. Additional estates required for access may be necessary and will be reviewed during each individual plan documentation.

Fee Title Estate

The fee simple title to (the land described in Schedule A)(Tract Nos. ____, ____ and ____), subject, however, to existing easement for public roads and highways, public utilities, railroads and pipelines.

Temporary Work Area Easement

A temporary easement and right-of-way in, on, over and across (the land described in Schedule A)(Tracts Nos. ____, ____ and ____), for a period not to exceed _____, beginning with date possession of the land is granted to the United States, for use by the United States, its representatives, agents, and contractors as a (borrow area) (work area), including the right to (borrow and/or deposit fill, spoil and waste material thereon) (move, store and remove equipment and supplies, and erect and remove temporary structures on the land), and to perform any other work necessary and incident to the construction of the _____ Project, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

b. The environmental component areas may include those estates mentioned above plus the following standard estates from ER 405-1-12.

Flowage Easement (Permanent Flooding)

The perpetual right, power, privilege and easement permanently to overflow, flood and submerge (the land described in Schedule A) (Tracts Nos. ____, ____, and ____) (and to maintain mosquito control) in connection with the operation and maintenance of the _____ project as authorized by the Act of

Congress approved _____, and the continuing right to clear and remove any brush, debris and natural obstructions which, in the opinion of the representative of the United States in charge of the project, may be detrimental to the project, together with all right, title and interest in and to the timber, structures and improvements situate on the land (excepting _____ (here identify those structures not designed for human habitation which the District Engineer determines may remain on the land)); provided that no structures for human habitation shall be constructed or maintained on the land, that no other structures shall be constructed or maintained on the land except as may be approved in writing by the representative of the United States in charge of the project, and that no excavation shall be conducted and no landfill placed on the land without such approval as to the location and method of excavation and/or placement of landfill; 3/ the above estate is taken subject to existing easements for public roads and highways, public utilities, railroads and pipelines; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used and enjoyed without interfering with the use of the project for the purposes authorized by Congress or abridging the rights and easement hereby acquired; provided further that any use of the land shall be subject to Federal and States laws with respect to pollution.

3/ If sand and gravel or other guardable material is in the easement area and the excavation thereof will not interfere with the operation of the project, the following clause will be added: "excepting that excavation for the purpose of quarrying (sand) (gravel) (etc.) shall be permitted, subject only to such approval as to the placement of overburden, if any, in connection with such excavation;"

Channel Improvement Easement

A perpetual and assignable right and easement to construct, operate, and maintain channel improvement works on, over and across (the land described in Schedule A) (Tracts Nos. _____, _____ and _____) for the purposes as authorized by the Act of Congress approved _____, including the right to clear, cut, fell, remove and dispose of any and all timber, trees, underbrush, buildings, improvements and/or other obstructions therefrom; to excavate, dredge, cut away, and remove any or all of said land and to place thereon dredge or spoil material; and for such other purposes as may be required in connection with said work of improvement; reserving, however, to the owners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Flowage Easement (Occasional Flooding).

The perpetual right, power, privilege and easement occasionally to overflow, flood and submerge (the land described in Schedule A) (Tracts Nos. _____, _____ and _____). (and to maintain mosquito control) in connection with the operation and maintenance of the _____ project as authorized by the Act of Congress approved _____, together with all right, title and interest in and to the structure; and improvements now situate on the land, except fencing (and also excepting _____ (here identify those structures not designed for human habitation which the District Engineer determines may remain on the land))

4/ ; provided that no structures for human habitation shall be constructed or maintained on the land, that no other structures shall be constructed or maintained on the land except as may be approved in writing by the representative of the United States in charge of the project, and that no excavation shall be conducted and no landfill placed on the land without such approval as to the location and method of excavation and/or placement of landfill;

3/ the above estate is taken subject to existing easements for public roads and highways, public utilities, railroads and pipelines; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used and enjoyed without interfering with the use of the project for the purposes authorized by Congress or abridging the rights and easement hereby acquired; provided further that any use of the land shall be subject to Federal and State laws with respect to pollution. If sand and gravel or other quarriable material is in the easement area and the excavation thereof will not interfere with the operation of the project, the following clause will be added: "excepting that excavation for the purpose of quarrying (sand) (gravel) (etc.) shall be permitted, subject only to such approval as to the placement of overburden, if any, in connection with such excavation;"

Road Easement

A perpetual and assignable easement and right-of-way in, on over and across (the land described in Schedule A) (Tracts Nos. , and) for the location, construction, operation, maintenance, alteration and replacement of (a) road(s) and appurtenances thereto; together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions and other vegetation, structures, or obstacles within the limits of the right-of-way; (reserving, however, to the owners, their heirs and assigns, the right to cross over or under the right-of-way as access to their adjoining land at the locations indicated in Schedule B); 5/ subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

5/ The parenthetical clause may be deleted, where necessary; however, the use of this reservation may substantially reduce the liability of the Government through reduction of severance damages and consideration of special benefits; therefore, its deletion should be fully justified.

Railroad Easement

A perpetual and assignable easement and right-of-way in, on, over and across (the land described in Schedule A) (Tracts Nos. , and) for the location, construction, operation, maintenance, alteration and replacement of a railroad and appurtenances thereto; together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and other vegetation, structures, or obstacles within the limits of the right-of-way; (reserving, however, to the landowners, their heirs and assigns, the right to cross over or under the right-of-way as access to their adjoining land at the locations indicated in Schedule B;) 6/ subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

6/ The use of this reservation clause may substantially reduce the liability of the Government through reduction of severance damages.

III. LANDS REQUIRED OWNED BY SPONSOR

Sponsors have not yet been identified for this project. These lands will be identified in future planning documents as required.

IV. NON-STANDARD ESTATE DISCUSSION

There are currently no non-standard estates within this report.

V. FEDERAL PROJECT WITHIN LER REQUIRED FOR THE PROJECT

Previous Federal Projects do lie within the boundaries of some of the project features. These lands will be identified in future planning documents as required.

VI. FEDERALLY OWNED LAND REQUIRED FOR THE PROJECT

Land ownership at proposed projects includes lands owned by the Federal Government. All of the lock and dam facilities are located on Government land. In addition there are several acres of lands that are directly adjacent to the Mississippi River that were purchased for the Nine-Foot Channel Project. These lands are either owned in Fee Simple Title or encumbered by Flowage Easements. Many of the Government owned lands are managed by the U.S. Fish and Wildlife Service under a Cooperative Agreement. There are also U.S Fish and Wildlife Refuge Lands that may be included in the project.

Other Government owned lands were purchased for the Dredge Material Placement Program (DMMP) for the purpose of maintaining the nine-foot channel. Most of these lands were purchased in Fee Simple Title with a few Channel Improvement Easements for access issues. In hydraulic dredging events, there were additional lands acquired by easement to compensate landowners for water runoff concerns through privately owned ditches. Other dredge areas were utilized through the use of a Dredge Material Placement Permit or Lease. All of these were obtained or purchased to specifically support individual DMMP reports and requirements. On the Mississippi River, the United States has acquired all real estate interests needed for the construction, operation and maintenance of the 9-foot project.

The following table denotes the total acreages on the Mississippi River in the Rock Island District, St Paul District and the St Louis District:

Corps of Engineers Real Estate Interests

Mississippi River in MVR

(Includes emergent and submerged lands)

POOL	FEE TITLE ACRES	EASEMENT ACRES
11	9,514	2,125
12	8,628	1,539
13	25,393	1,743
14	6,619	2,888
LE CLAIRE BASE	14	0
15	4	63
16	7,032	179
17	11,389	61
18	10,104	666
19	2	0
20	280	1,322
21	8,627	662
22	6,066	434
24	1,979	8,513
25	1,526	9,514
TOTALS	97,177	29,709

The following explains the ownership issues and concerns of the Illinois Waterway:

Unlike the Mississippi River, where the United States has acquired all real estate interests needed for the construction, operation and maintenance of the project, the Illinois Waterway situation differs. Portions of the Illinois Waterway were improved or were in the process of being improved by other entities prior to the United States assuming complete control of the project with respect to improvement for the purpose of navigation. Since those other entities acquired certain real estate interests for improvement of the waterway, prior to the United States assuming control of the project with respect to navigation, the United States did not acquire a real estate interest in all of the lands that are affected by the construction, operation and maintenance of the project. Therefore, the existing real estate interests and rights the United States has with respect to real estate required for the construction, operation and maintenance of the Illinois Waterway Navigation Project is a complex mixture and varies with each location along the waterway. The following provides a summary explanation of the existing real estate interests and rights, which the United States has for the project.

By Public Law 520, 71st Congress, dated 3 July 1930, Congress authorized the United States to undertake the project for improvement of navigation on the Illinois Waterway, in accordance with the report of the Chief of Engineers as submitted in Senate Document Numbered 126, 71st Congress 2nd Session. In the report of the Chief of Engineers it is explained

that the constitution of the State of Illinois prohibits the State from conveying title to any of the real estate and associated improvements that the State had acquired and developed for the improvement of the waterway. The Secretary of War asked the Attorney General of the United States to confirm whether or not, upon the Illinois Waterway Project being authorized by Congress, the United States would have complete control of the waterway including the structures, even though the State of Illinois could not formally convey title to the United States. The Attorney General concluded that, with respect to the parts of the waterway that are navigable streams improved by the State, the United States may, under appropriate acts of Congress, take complete control over the improvement and regulation of navigation without any amendment to the constitution of Illinois or permission from the State. The Governor of the State of Illinois, in a brief to the Secretary of War dated 19 March 1930, states the opinion of the Governor “that, upon adoption of the Illinois Waterway by the Federal Government, and upon an appropriation being made for its completion, the Federal government will acquire as full and complete jurisdiction and control of said waterway and its appurtenances, as if, by appropriate authority, conveyance of title had been made by the State of Illinois.” Therefore, while the State of Illinois did not convey title to the real property and associated improvements acquired and developed by the State of Illinois for the waterway, it was the understanding and intent of both the United States and the State of Illinois that the United States would have complete control of the waterway upon the project being authorized by Congress, as if title had been conveyed. This provides only a brief summary of what is contained in the Chief of Engineers report. For a complete understanding of the circumstances, refer to the full text of the communications in Senate Document Numbered 126, 71st Congress 2nd Session.

In other portions of the Illinois Waterway including part of the Des Plains River, the Lockport Lock, the Chicago Sanitary and Ship Canal, the Chicago River and the Calumet-Sag Channel, the Metropolitan Water Reclamation District of Greater Chicago (MWRD) acquired real estate interests and developed improvements prior to the United States being authorized to develop those portions of the waterway for navigation.

The Department of the Army entered into a Memorandum of Agreement with MWRD which provides for the Department of the Army to operate and maintain certain improvements that were developed by MWRD on portions of the waterway in the Chicago River, the Chicago Sanitary and Ship Canal and part of the Des Plains River including, but not limited to, the Chicago River Lock and Lockport Lock, and to perform certain additional activities in connection with maintenance of portions of the waterway. The agreement also states that MWRD and Department of the Army hereby convey to each other, at no cost, all rights of entry and/or easements necessary for each to carry out its responsibilities under this agreement.

The Calumet-Sag Channel project was authorized with the provision that a local interest shall furnish all lands and easements necessary to prosecute the work. MWRD signed Assurance Agreements for the Calumet-Sag Channel Project agreeing to furnish free of cost to the United States all lands, easements, rights-of-way and spoil disposal areas necessary for the new work and for subsequent maintenance when and as required. MWRD subsequently has conveyed easements, fee title and rights-of-entry to the United States over areas required by the United States for the project.

Subsequent to the United States assuming control and operation of the various portions of the Illinois Waterway, the United States proceeded to acquire certain additional real estate interests, in the name of the United States, that were required for the construction, operation and maintenance of the project.

Therefore, the real estate interests and rights which the United States has for the Illinois Waterway project vary greatly, depending on the specific portion of the project. Table (IWW Ownership Facts) provides a basic summary of the entities believed to hold real estate interests required for the various parts of the Illinois Waterway Project at both the Locks and Dams and in the Pools.

The Corps of Engineers maintains records only of those real estate interests that are held by the United States for the Illinois Waterway Project. It would be ideal to have complete documentation of all of the real estate interests needed for the project stating who holds the interests. However, to identify all of the real estate interests held by the other entities that are required for the project would require a significant effort and expenditure of funds to research and compile the records. Therefore it is most practical to identify who may currently have real estate interests for the project on a case-by-case basis as the need arises.

With respect to the real estate interests that were previously acquired by the State of Illinois for the Illinois Waterway project where the state has not actually conveyed title to the United States, if any new work is to be done on that property, it would at least require a title search to verify that the State of Illinois still owns the property. If the State of Illinois owns the property to be affected by new work, it may also be prudent to verify with the State of Illinois that they agree the property is part of that which the United States assumed control of for the purpose of improving navigation.

Table - IWW Ownership Facts		
This table identifies which entities are believed to hold existing real estate interests required for the Illinois Waterway in the various project portions, which are further separated by Lock and Dam site and Pool area.		
Project Portion	Lock and Dam Site	Pool Area
LaGrange Lock and Dam	United States	There is no indication in the records of any real estate interests acquired for the LaGrange Pool
Peoria Lock and Dam	United States	State of Illinois and United States
Starved Rock Lock and Dam	State of Illinois	State of Illinois and United States
Marseilles Lock, Canal and Dam	State of Illinois and United States	State of Illinois and United States
Dresden Island Lock and Dam	State of Illinois	State of Illinois and United States
Brandon Road Lock and Dam	State of Illinois	The United States has some real estate interests. This pool is primarily contained by walls. If there are any additional real estate interests held for the pool it would likely be the State of Illinois and/or MWRD.
Lockport Lock and Chicago Sanitary and Ship Canal	MWRD	MWRD
Calumet Sag Channel	No Lock	United States and MWRD
T. J. O'Brien Lock	United States	None known
Chicago River, Chicago Harbor and Lock	Located in Chicago District. Real Estate information not available in Rock Island District.	Located in Chicago District. Real Estate information not available in Rock Island District.

VII. NAVIGATIONAL SERVITUDE

The navigation servitude is the dominant right of the United States to use, control and regulate the navigable waters and submerged lands there-under. The practical result is that no interest in real estate is required for the United States to implement a project purpose or measure related to navigation in areas subject to the navigation servitude. In tidal areas, the servitude extends to all lands below the mean high water mark, whereas in non-tidal areas, the servitude extends to all lands within the beds and banks of a navigable stream that lie below the ordinary high water mark. For this Feasibility Study, the measures proposed for implementation within the servitude are related to navigation and include the navigation features and those measures to address the impacts of the navigation project.

The geographic area over which the navigation servitude can be applied requires surveys to determine where the servitude lies. The real estate cost estimates do not include the effect of the navigation servitude given these surveys have not yet been made.

VIII. POSSIBILITY OF INDUCED FLOODING DUE TO PROJECT

It is unknown at this time if induced flooding will be caused within the project areas. Additional flowage easements would be purchased in this event.

IX. RELOCATION ASSISTANCE BENEFITS

All of the projects for this plan will be evaluated as to the provisions and requirements necessary for relocation assistance benefits. This will be performed during each project plan as necessary.

Public Law 91-646, Title II, authorizes payment of relocation benefits to persons displaced from their homes, businesses, or farms by federal and or federally assisted programs. Those benefits comprise moving expenses and replacement housing benefits that are separate from and in addition to the acquisition payments for real property. Estimated benefits for residential displacements include moving expenses and replacement housing. Relocation benefits for nonresidential displacements are limited to moving expenses, including search expenses, and if applicable, reestablishment expenses.

Typical project lands are either within the river itself or are located on flood prone land that is unimproved. Projects that do affect improved lands do not involve significant numbers of displacements. It would be envisioned that local housing markets would be more than adequate to accommodate these displacements. Some areas are currently used as farmlands.

Any issues associated with last resort housing will be dealt with on a case-by-case basis and will be fully discussed in each individual project's implementation study document.

X. MINERAL ACTIVITY/TIMBER HARVESTING IN PROJECT AREA

Mineral, oil, and gas rights will not be acquired except in areas outside the Navigational Servitude where development would interfere with project purposes. Mineral rights not within the servitude will either be acquired where necessary (for project purposes) or will be reserved and subordinated to the Government's right to regulate their development in a manner that will not interfere with the primary purposes of the project, including public access. Each proposed project would be evaluated to determine where minerals should be acquired, reserved and subordinated, or in some cases left entirely outstanding. The multiplicity of ownerships in mineral interests, the variety of minerals and the different methods of mineral exploration, recovery and production make it impracticable to define in advance specific guidelines concerning the reservation of mineral interests and their subordination to primary project purposes in any given project. Implementation planning document real estate plans will fully discuss and consider the need for or extent of acquisition and/or reservation of mineral interests.

XI. SPONSORS LEGAL AND PROFESSIONAL CAPABILITY TO ACQUIRE LER

No sponsors have been identified for any particular project. It is anticipated that potential sponsors will most likely be states or state agencies. The total array of potential sponsors is proposed to be similar to those for EMP, Section 1135 and 206 projects. As individual projects are submitted for approval, an assessment of sponsor land ownership will be made.

XII. ZONING ORDINANCES PROPOSED

It is uncertain if zoning ordinance will be proposed for this project. This will be looked at further as each individual project develops.

XIII. SCHEDULE OF LAND ACQUISITION MILESTONES

Implementation study documents will need to be prepared as each project is proposed. The time and cost to prepare the Real Estate Plans and Real Estate Design

Memorandums, as applicable, for these documents will vary depending on the size and nature of the proposed project.

Upon approval of the implementation study document, real estate acquisition schedules would be variable and based on the number of tracts involved, sponsor capabilities and input by the individual project sponsors.

XIV. FACILITY OR UTILITY RELOCATIONS

Each project submitted for implementation approval will undergo an evaluation of this issue. If applicable, Attorneys' Opinions will be prepared in accordance with ER 405-1-12 and included in the Real Estate Plan or Real Estate Design Memorandum, as applicable, in the planning document.

The issue of relocation of towns and cemeteries are unknown at this time due to the uncertainty of the Environmental Component locations. It is assumed that no town relocations would be necessary.

XV. IMPACTS OF SUSPECTED OR KNOWN CONTAMNANTS

a. National Environmental Policy Act (NEPA) Status

The decision document and environmental assessment are being integrated into one report per regulations in accordance with Appendix F of ER1105-2-100 dated 28 December 1990. Depending on the comments received during public and agency review either a Finding of No Significant Impact or an EIS will be prepared.

b. Hazardous, Toxic, and Radioactive Waste (HTRW)

In accordance with U.S. Army Corps of Engineers (USACE) policy, all sites must be investigated prior to acquisition or construction to determine the potential presence of any materials that may be considered a HTRW contaminant.

c. Mitigation

Minor impacts associated with site acquisition usage, dredging and material placement may occur during the construction of this project, however, no significant adverse impacts are expected. The use of best management practices and proper construction techniques would minimize adverse water quality impacts. No separable lands have been identified as being needed for mitigation purposes.

XVI. LANDOWNERS SUPPORT OR OPPOSITION TO THE PROJECT

It is unknown at this time whether landowners support or oppose the project. Landowner meetings would be held per applicable regulations and requirements.

XVII. RISKS OF ACQUIRING LANDS BEFORE EXECUTION OF THE PCA OR AUTHORIZED DOCUMENTS

The Sponsors have not yet been identified. Once identified the non-Federal sponsor will be advised in writing of the risks associated with acquiring land before execution of the Project Cooperation Agreement (PCA) IAW ER 405-1-12, Chapter 12.

VIII. OTHER REAL ESTATE ISSUES RELEVANT TO PROJECT

The non-federal sponsors shall provide a percentage of the cost of construction of any project carried out, including provision of all lands, easements, rights-of-ways, and necessary relocations (LERRD) to accommodate construction, operation, and maintenance of the project. This percentage will be based on a case-by-case basis depending on authorization. If the value of LERRD's exceeds those percentages of total project costs the sponsor may be reimbursed for that portion in excess of those percentages or the Government may assume financial responsibility for payment of the portion that exceeds that percentage.

A Real Estate Design Memorandum (REDM) will be prepared in accordance with ER 405-1-12 for all lands that are to be acquired by the Federal Government. The REDM will be the main document identifying lands to be acquired. Upon approval of the REDM by higher headquarters, and funding made available, acquisition activities would commence.

The Sponsors and the Government will enter into a Project Cooperation Agreement (PCA) prior to initiation of land acquisition by the sponsor. Generally, the sponsor is responsible for 100 percent of all operation and maintenance costs of the project. Some of the environmental projects may involve the use of a Memorandum of Agreement if those projects involve other Federal Agencies such as the United States Fish and Wildlife Service.

The United States Government has several locations on the Mississippi River that contain cabin leases and other lease areas. The affect on these areas has not yet been determined as to how those leases will be affected. This matter will be discussed on a case-by-case basis during future planning events as applicable.